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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	DEC 05	CASREACT(R) - Over 10 million reactions available
NEWS 4	DEC 14	2006 MeSH terms loaded in MEDLINE/LMEDLINE
NEWS 5	DEC 14	2006 MeSH terms loaded for MEDLINE file segment of TOXCENTER
NEWS 6	DEC 14	CA/CAplus to be enhanced with updated IPC codes
NEWS 7	DEC 21	IPC search and display fields enhanced in CA/CAplus with the IPC reform
NEWS 8	DEC 23	New IPC8 SEARCH, DISPLAY, and SELECT fields in USPATFULL/ USPAT2
NEWS 9	JAN 13	IPC 8 searching in IFIPAT, IFIUDB, and IFICDB
NEWS 10	JAN 13	New IPC 8 SEARCH, DISPLAY, and SELECT enhancements added to INPADOC
NEWS 11	JAN 17	Pre-1988 INPI data added to MARPAT
NEWS 12	JAN 17	IPC 8 in the WPI family of databases including WPIFV
NEWS 13	JAN 30	Saved answer limit increased
NEWS 14	JAN 31	Monthly current-awareness alert (SDI) frequency added to TULSA
NEWS 15	FEB 21	STN AnaVist, Version 1.1, lets you share your STN AnaVist visualization results
NEWS 16	FEB 22	Status of current WO (PCT) information on STN
NEWS 17	FEB 22	The IPC thesaurus added to additional patent databases on STN
NEWS 18	FEB 22	Updates in EPFULL; IPC 8 enhancements added
NEWS 19	FEB 27	New STN AnaVist pricing effective March 1, 2006
NEWS 20	FEB 28	MEDLINE/LMEDLINE reload improves functionality
NEWS 21	FEB 28	TOXCENTER reloaded with enhancements
NEWS 22	FEB 28	REGISTRY/ZREGISTRY enhanced with more experimental spectral property data
NEWS 23	MAR 01	INSPEC reloaded and enhanced
NEWS 24	MAR 03	Updates in PATDPA; addition of IPC 8 data without attributes
NEWS 25	MAR 08	X.25 communication option no longer available after June 2006

NEWS EXPRESS FEBRUARY 15 CURRENT VERSION FOR WINDOWS IS V8.01a,
CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 19 DECEMBER 2005.
V8.0 AND V8.01 USERS CAN OBTAIN THE UPGRADE TO V8.01a AT
http://download.cas.org/express/v8.0-Discover/

NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS INTER	General Internet Information
NEWS LOGIN	Welcome Banner and News Items
NEWS PHONE	Direct Dial and Telecommunication Network Access to STN
NEWS WWW	CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that

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* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 16:56:27 ON 15 MAR 2006

=> fil reg
COST IN U.S. DOLLARS

	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 16:56:47 ON 15 MAR 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 14 MAR 2006 HIGHEST RN 876856-38-1
DICTIONARY FILE UPDATES: 14 MAR 2006 HIGHEST RN 876856-38-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

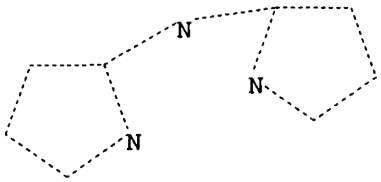
****
* *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
* *
****

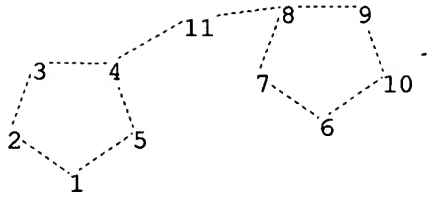
Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>
Uploading C:\Program Files\Stnexp\Queries\10508754rtr.str



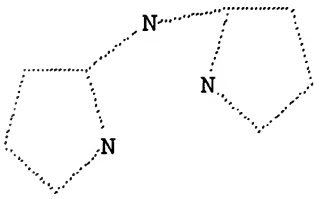


chain nodes :
11
ring nodes :
1 2 3 4 5 6 7 8 9 10
chain bonds :
4-11 8-11
ring bonds :
1-2 1-5 2-3 3-4 4-5 6-7 6-10 7-8 8-9 9-10
exact/norm bonds :
1-2 1-5 2-3 3-4 4-5 4-11 6-7 6-10 7-8 8-9 8-11 9-10

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 16:57:09 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 127 TO ITERATE

100.0% PROCESSED 127 ITERATIONS 6 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 1864 TO 3216
PROJECTED ANSWERS: 6 TO 266

L2 6 SEA SSS SAM L1

=> s l1 full

FULL SEARCH INITIATED 16:57:16 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 2471 TO ITERATE

100.0% PROCESSED 2471 ITERATIONS 146 ANSWERS
SEARCH TIME: 00.00.01

L3 146 SEA SSS FUL L1

=> fil hcaplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	166.94	167.15

FILE 'HCAPLUS' ENTERED AT 16:57:22 ON 15 MAR 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 15 Mar 2006 VOL 144 ISS 12
FILE LAST UPDATED: 14 Mar 2006 (20060314/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3
L4 62 L3

=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.53	169.68

FILE 'REGISTRY' ENTERED AT 16:57:55 ON 15 MAR 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 14 MAR 2006 HIGHEST RN 876856-38-1
DICTIONARY FILE UPDATES: 14 MAR 2006 HIGHEST RN 876856-38-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when

conducting SmartSELECT searches.

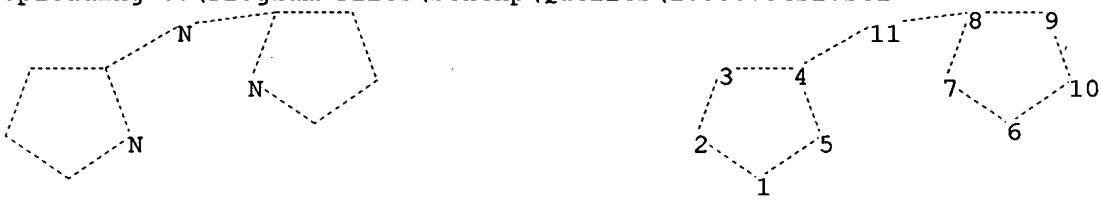
```
**********************************************************************
*                                                                    *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added,   *
* effective March 20, 2005.  A new display format, IDERL, is now    *
* available and contains the CA role and document type information. *
*                                                                    *
**********************************************************************
```

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>
Uploading C:\Program Files\Stnexp\Queries\10508754s2.str

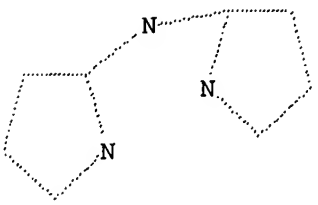


chain nodes :
11
ring nodes :
1 2 3 4 5 6 7 8 9 10
chain bonds :
4-11 8-11
ring bonds :
1-2 1-5 2-3 3-4 4-5 6-7 6-10 7-8 8-9 9-10
exact/norm bonds :
1-2 1-5 2-3 3-4 4-5 4-11 6-7 6-10 7-8 8-9 8-11 9-10
isolated ring systems :
containing 1 : 6 :

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:CLASS

L5 STRUCTURE UPLOADED

=> d l5
L5 HAS NO ANSWERS
L5 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l5 full
FULL SEARCH INITIATED 17:00:08 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 417 TO ITERATE

100.0% PROCESSED 417 ITERATIONS 82 ANSWERS
SEARCH TIME: 00.00.01

L6 82 SEA SSS FUL L5

=> fil hcaplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 168.26 337.94

FILE 'HCAPLUS' ENTERED AT 17:00:12 ON 15 MAR 2006
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 15 Mar 2006 VOL 144 ISS 12
FILE LAST UPDATED: 14 Mar 2006 (20060314/ED)

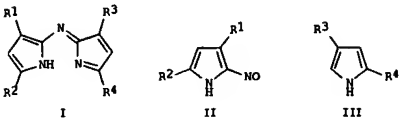
New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate
substance identification.

=> s l6
L7 32 L6

=> d ed abs ibib hitstr 1-32

L7 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 15 Jun 2005
GI



I II III

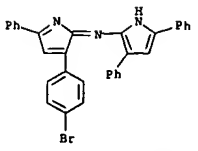
AB A stepwise route to unsym. tetraarylazadipyrromethenes I [R1 = Ph, 4-MeOC6H4, R2 = Ph, 4-MeOC6H4, 4-FC6H4, R3 = 4-Me2NC6H4, 4-MeOC6H4, 4-BrC6H4, 4-Et2NCH2C6H4, [(4-morpholino)methyl]phenyl, 4-MeCOC6H4, Ph, R4 = Ph, 4-FC6H4, 4-MeOC6H4] by a condensation of 2,4-diaryl-5-nitroso-pyrroles II with 2,4-diarylpyrroles III is described. This modular building-block approach allows for the introduction of up to four different aryl substituents on the azadipyrromethene and is tolerant of a varied substituent set. An efficient synthesis of the 2,4-diarylpyrroles building blocks III from 1,3-diaryl-4-nitrobutan-1-ones O2NCH2CH(R1)CH2COR2 by nitro hydrolysis to a keto-aldehyde and subsequent ammonia condensation reaction has been achieved. The facile conversion of 2,4-diarylpyrroles III into their α-nitroso analogs by their reaction with sodium nitrite generated the second building block II required for the synthesis.

ACCESSION NUMBER: 2005:508621 HCAPLUS
DOCUMENT NUMBER: 143:211797
TITLE: A Modular Synthesis of Unsymmetrical Tetraarylazadipyrromethenes
AUTHOR(S): Hall, Michael J.; McDonnell, Shane O.; Killoran, John; O'Shea, Donal F.
CORPORATE SOURCE: Centre for Synthesis and Chemical Biology, Conway Institute, Department of Chemistry, University College Dublin, Dublin, Ire.
SOURCE: Journal of Organic Chemistry (2005), 70(14), 5571-5578
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

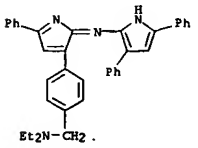
IT **862201-43-2P 862201-44-3P 862201-45-4P**
862201-46-5P 862201-47-6P 862201-48-7P
862201-49-8P 862201-50-1P 862201-51-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(modular preparation of unsym. tetraarylazadipyrromethenes from diarylnitrosopyrroles and diarylpyrroles)

RN 862201-43-2 HCAPLUS
CN 1H-Pyrrol-2-amine, N-[3-(4-bromophenyl)-5-phenyl-2H-pyrrol-2-ylidene]-3,5-diphenyl- (9CI) (CA INDEX NAME)

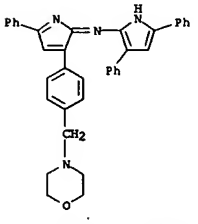
L7 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 862201-44-3 HCAPLUS
CN 1H-Pyrrol-2-amine, N-[3-[4-[(diethylamino)methyl]phenyl]-5-phenyl-2H-pyrrol-2-ylidene]-3,5-diphenyl- (9CI) (CA INDEX NAME)

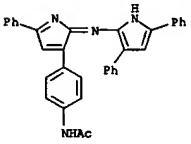


RN 862201-45-4 HCAPLUS
CN 1H-Pyrrol-2-amine, N-[3-[4-(4-morpholinylmethyl)phenyl]-5-phenyl-2H-pyrrol-2-ylidene]-3,5-diphenyl- (9CI) (CA INDEX NAME)

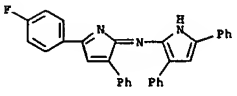


RN 862201-46-5 HCAPLUS
CN Acetamide, N-[4-[2-[(3,5-diphenyl-1H-pyrrol-2-yl)imino]-5-phenyl-2H-pyrrol-3-yl]phenyl]- (9CI) (CA INDEX NAME)

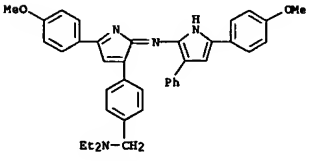
L7 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



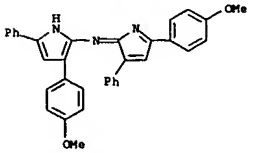
RN 862201-47-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-[5-(4-fluorophenyl)-3-phenyl-2H-pyrrol-2-ylidene]-3,5-diphenyl- (9CI) (CA INDEX NAME)



RN 862201-48-7 HCAPLUS
CN 1H-Pyrrol-2-amine, N-[3-[4-[(diethylamino)methyl]phenyl]-5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene]-5-(4-methoxyphenyl)-3-phenyl- (9CI) (CA INDEX NAME)

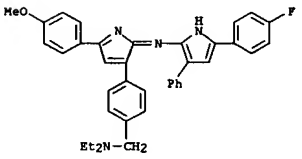


RN 862201-49-8 HCAPLUS
CN 1H-Pyrrol-2-amine, 3-(4-methoxyphenyl)-N-[5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene]-5-phenyl- (9CI) (CA INDEX NAME)

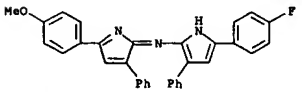


L7 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 862201-50-1 HCAPLUS
CN 1H-Pyrrol-2-amine, N-[3-[4-[(diethylamino)methyl]phenyl]-5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene]-5-(4-fluorophenyl)-3-phenyl- (9CI) (CA INDEX NAME)

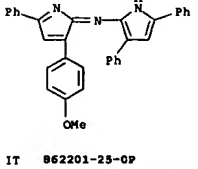


RN 862201-51-2 HCAPLUS
CN 1H-Pyrrol-2-amine, 5-(4-fluorophenyl)-N-[5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene]-3-phenyl- (9CI) (CA INDEX NAME)



IT **862201-42-1P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(modular preparation of unsym. tetraarylazadipyrromethenes from diarylnitrosopyrroles and diarylpyrroles and crystal structure)

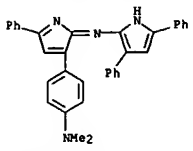
RN 862201-42-1 HCAPLUS
CN 1H-Pyrrol-2-amine, N-[3-(4-methoxyphenyl)-5-phenyl-2H-pyrrol-2-ylidene]-3,5-diphenyl- (9CI) (CA INDEX NAME)



IT **862201-25-0P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(modular preparation of unsym. tetraarylazadipyrromethenes from diarylnitrosopyrroles and diarylpyrroles and crystal structure)

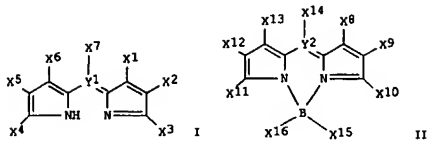
RN 862201-25-0 HCAPLUS
CN 1H-Pyrrol-2-amine, N-[3-[4-(dimethylamino)phenyl]-5-phenyl-2H-pyrrol-2-ylidene]-3,5-diphenyl- (9CI) (CA INDEX NAME)

L7 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 11 Mar 2005
GI



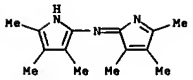
AB The materials comprise (A) amines ArlNR1R2 [Ar1 = (un)substituted perylenyl; R1, R2 = (un)substituted aromatic hydrocarbyl or aromatic heterocyclic group; Ar1 and R1, Ar1 and R2, or R1 and R2 may form ring] and (B) pyrromethenes I or II [X1-X14 = H, (un)substituted aliphatic hydrocarbyl, aromatic hydrocarbyl, aliphatic heterocyclic group, or aromatic heterocyclic group; X1-X7 may form ring; Y1, Y2 = C, N; X15, X16 = halo, H, (un)substituted aliphatic hydrocarbyl, aromatic hydrocarbyl, aliphatic heterocyclic group, or aromatic heterocyclic group]. Organic electroluminescent devices have light-emitting layers of the materials. The devices show high luminance, low driving voltage, and high color purity.

ACCESSION NUMBER: 2005:215910 HCAPLUS
DOCUMENT NUMBER: 142:287613
TITLE: Materials for red-emitting organic electroluminescent devices with long lifetime
INVENTOR(S): Toba, Yasumasa; Suda, Yasumasa; Amano, Saneomi; Tanaka, Hiroaki
PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 61 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005060459	A2	20050310	JP 2003-289700	20030808

PRIORITY APPLN. INFO.: JP 2003-289700 20030808
OTHER SOURCE(S): MARPAT 142:287613
IT 847253-76-3
RL: DEV (Device component use); USES (Uses)
(red-emitting organic electroluminescent devices with high luminance and low driving voltage)
RN 847253-76-3 HCAPLUS
CN 1H-Pyrrol-2-amine, 3,4,5-trimethyl-N-(3,4,5-trimethyl-2H-pyrrol-2-ylidene)- (9CI) (CA INDEX NAME)

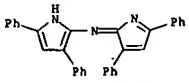
L7 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



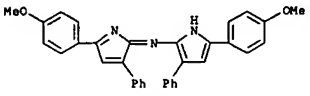
L7 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 10 Aug 2004
AB Photodynamic therapy (PDT) is an emerging treatment modality for a range of disease classes, both cancerous and noncancerous. This has brought about an active pursuit of new PDT agents that can be optimized for the unique set of photophys. characteristics that are required for a successful clin. agent. We now describe a totally new class of PDT agent, the BF2-chelated 3,5-diaryl-1H-pyrrol-2-yl-3,5-diarylpyrrol-2-ylideneamines (tetraarylazadipyrromethenes). Optimized synthetic procedures have been developed to facilitate the generation of an array of specifically substituted derivs. to demonstrate how control of key therapeutic parameters such as wavelength of maximum absorbance and singlet-oxygen generation can be achieved. Photosensitizer absorption maxima can be varied within the body's therapeutic window between 650 and 700 nm, with high extinction coeffs. ranging from 75 000 to 85 000 M-1 cm-1. Photosensitizer singlet-oxygen generation level was modulated by the exploitation of the heavy-atom effect. An array of photosensitizers with and without bromine atom substituents gave rise to a series of compds. with varying singlet-oxygen generation profiles. X-ray structural evidence indicates that the substitution of the bromine atoms has not caused a planarity distortion of the photosensitizer. Comparative singlet-oxygen production levels of each photosensitizer vs. two stds. demonstrated a modulating effect on singlet-oxygen generation depending upon substituent patterns about the photosensitizer. Confocal laser scanning microscopy imaging of 18a in HeLa cervical carcinoma cells proved that the photosensitizer was exclusively localized to the cellular cytoplasm. In vitro light-induced toxicity assays in HeLa cervical carcinoma and MRC5-SV40 transformed fibroblast cancer cell lines confirmed that the heavy-atom effect is viable in a live cellular system and that it can be exploited to modulate assay efficacy. Direct comparison of the efficacy of the photosensitizers 18b and 19b, which only differ in mol. structure by the presence of two bromine atoms, illustrated an increase in efficacy of more than a 1000-fold in both cell lines. All photosensitizers have very low to nondeterminable dark toxicity in our assay system.

ACCESSION NUMBER: 2004:641070 HCAPLUS
DOCUMENT NUMBER: 141:309709
TITLE: In Vitro Demonstration of the Heavy-Atom Effect for Photodynamic Therapy
AUTHOR(S): Gorman, Aoife; Killoran, John; O'Shea, Caroline; Kenna, Tony; Gallagher, William M.; O'Shea, Donal F.
CORPORATE SOURCE: Centre for Synthesis and Chemical Biology, Conway Institute of Biomolecular and Biomedical Research, University College Dublin, Belfield, Ire.
SOURCE: Journal of the American Chemical Society (2004), 126(34), 10619-10631
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 141:309709
IT 40047-93-6P 490035-85-3P 603105-63-1P 768377-92-0P 768377-93-1P 849703-40-8P 849703-41-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(PDT photosensitizers preparation and heavy-atom effect)
RN 40047-93-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)

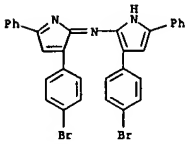
L7 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



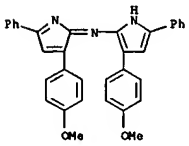
RN 490035-85-3 HCAPLUS
CN 1H-Pyrrol-2-amine, 5-(4-methoxyphenyl)-N-[5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene]-3-phenyl- (9CI) (CA INDEX NAME)



RN 603105-63-1 HCAPLUS
CN 1H-Pyrrol-2-amine, 3-(4-bromophenyl)-N-[3-(4-bromophenyl)-5-phenyl-2H-pyrrol-2-ylidene]-5-phenyl- (9CI) (CA INDEX NAME)

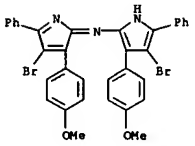


RN 768377-92-0 HCAPLUS
CN 1H-Pyrrol-2-amine, 3-(4-methoxyphenyl)-N-[3-(4-methoxyphenyl)-5-phenyl-2H-pyrrol-2-ylidene]-5-phenyl- (9CI) (CA INDEX NAME)



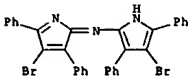
RN 768377-93-1 HCAPLUS
CN 1H-Pyrrol-2-amine, 4-bromo-N-[4-bromo-3-(4-methoxyphenyl)-5-phenyl-2H-pyrrol-2-ylidene]-3-(4-methoxyphenyl)-5-phenyl-, monohydrobromide (9CI)

L7 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)
(CA INDEX NAME)



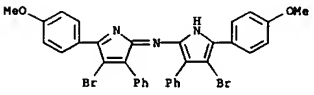
● HBr

RN 849703-40-8 HCAPLUS
CN 1H-Pyrrol-2-amine, 4-bromo-N-(4-bromo-3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

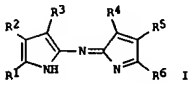
RN 849703-41-9 HCAPLUS
CN 1H-Pyrrol-2-amine, 4-bromo-N-[4-bromo-5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene]-5-(4-methoxyphenyl)-3-phenyl-, monohydrobromide (9CI) (CA INDEX NAME)



● HBr

REFERENCE COUNT: 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 03 Oct 2003
GI



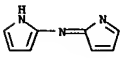
I

AB The present invention claims azadipyrromethenes (I) or a salt, metal complex or hydrate or other solvate thereof, (R1, R2, R3, R4, R5 and R6 are independently selected from the group consisting of H; a (un)substituted, (un)saturated, cyclic, moiety; a (un)substituted, (un)saturated, heterocyclic moiety; or a (un)substituted, (un)saturated, straight or branched chain alkyl or acyl moiety; metals = B, Al, Zn, Si, Mg, Lu, Sn). The present invention also claims the use of these compds. in the therapy in vivo or in vitro of a photosensitive target biol. cell by irradiation, as well as methods of treating a photosensitive target biol. cell in vivo or in vitro. Finally, the present invention claims pharmaceutical compns., comprising these compds., in association with a pharmaceutically acceptable diluent or carrier. For example, I (R1 = R3 = R4 = R6, R2 = R5 = H) reacted with BF3.OEt2 to give LBF2 (L = I) in 72-38 % yield. LBF2 was characterized by absorption and fluorescence spectra and the fluorescence quantum yields were determined

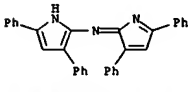
ACCESSION NUMBER: 2003:777809 HCAPLUS
DOCUMENT NUMBER: 139:269724
TITLE: Compounds useful as photodynamic therapeutic agents
INVENTOR(S): O'Shea, Donal; Killoran, John; Gallagher, William
PATENT ASSIGNEE(S): University College Dublin, National University of Ireland Dublin, Ire.
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXX02
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003080627	A1	20031002	WO 2003-EP3174	20030324
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003224000	A1	20031008	AU 2003-224000	20030324
EP 1492799	A1	20050105	EP 2003-720375	20030324
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005107335	A1	20050519	US 2003-508754	20030324
PRIORITY APPLN. INFO.:			IE 2002-209 A	20020322

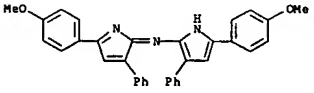
L7 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)
WO 2003-EP3174 W 20030324
OTHER SOURCE(S): MARPAT 139:269724
IT 77889-58-8DP, derivs., metal complexes
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of azadipyrromethene complexes for use in photodynamic therapy for)
RN 77889-58-8 HCAPLUS
CN 1H-Pyrrol-2-amine, N-2H-pyrrol-2-ylidene- (9CI) (CA INDEX NAME)



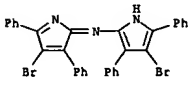
IT 40047-93-6 490035-85-3 490035-86-4
490035-87-5 603105-63-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for preparation of boron azadipyrromethene complexes for use in photodynamic therapy for cancer)
RN 40047-93-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)



RN 490035-85-3 HCAPLUS
CN 1H-Pyrrol-2-amine, 5-(4-methoxyphenyl)-N-[5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene]-3-phenyl- (9CI) (CA INDEX NAME)

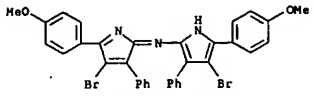


RN 490035-86-4 HCAPLUS
CN 1H-Pyrrol-2-amine, 4-bromo-N-(4-bromo-3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)

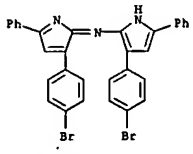


RN 490035-87-5 HCAPLUS
CN 1H-Pyrrol-2-amine, 4-bromo-N-[4-bromo-5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene]-5-(4-methoxyphenyl)-3-phenyl- (9CI) (CA INDEX NAME)

L7 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



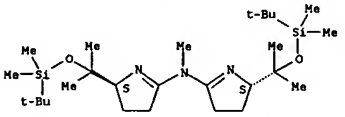
RN 603105-63-1 HCAPLUS
CN 1H-Pyrrol-2-amine, 3-(4-bromophenyl)-N-[3-(4-bromophenyl)-5-phenyl-2H-pyrrol-2-ylidene]-5-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

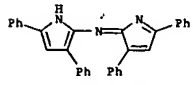
L7 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 21 Nov 2002
AB A review on preparation and application of palladium-allyl complexes.
ACCESSION NUMBER: 2002:881452 HCAPLUS
DOCUMENT NUMBER: 140:181474
TITLE: Product subclass 2: palladium-allyl complexes.
AUTHOR(S): Friesen, R. W.
CORPORATE SOURCE: Merck Frosst Centre for Therapeutic Research, Kirkland, PE, H9H 3L1, Can.
SOURCE: Science of Synthesis (2002), 1, 113-264
CODEN: SSCYJ9
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
IT 141362-75-6
RL: CAT (Catalyst use); USES (Uses)
(preparation and application of palladium-allyl complexes)
RN 141362-75-6 HCAPLUS
CN 2H-Pyrrol-5-amine, 2-[1-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-methylethyl]-N-[(2S)-2-[1-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-methylethyl]-3,4-dihydro-2H-pyrrol-5-yl]-3,4-dihydro-N-methyl-, (5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

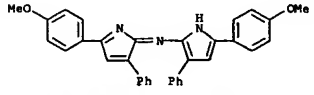


REFERENCE COUNT: 579 THERE ARE 579 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 28 Aug 2002
AB The synthesis, spectroscopic characteristics and in vitro cellular uptake properties of a new class of therapeutic window photosensitizer, namely the BF2 chelates of 3,5-diaryl-1H-pyrrol-2-yl-3,5-diarylpyrrol-2-ylidene amines (tetraarylazadipyrromethenes), are described with the aim of developing a novel class of photodynamic therapeutic agents.
ACCESSION NUMBER: 2002:647393 HCAPLUS
DOCUMENT NUMBER: 138:122679
TITLE: Synthesis of BF2 chelates of tetraarylazadipyrromethenes and evidence for their photodynamic therapeutic behavior
AUTHOR(S): Killoran, John; Allen, Lorcan; Gallagher, John F.; Gallagher, William M.; O'Shea, Donal F.
CORPORATE SOURCE: Conway Institute, Centre for Synthesis and Chemical Biology, Department of Chemistry, University College Dublin, Belfield, Dublin, Ire.
SOURCE: Chemical Communications (Cambridge, United Kingdom) (2002), (17), 1862-1863
CODEN: CHCOFS; ISSN: 1359-7345
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:122679
IT 40047-93-6 490035-85-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of boron difluoride chelates of tetraarylazadipyrromethenes and evidence for their photodynamic therapeutic behavior)
RN 40047-93-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)

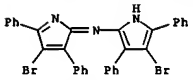


RN 490035-85-3 HCAPLUS
CN 1H-Pyrrol-2-amine, 5-(4-methoxyphenyl)-N-[5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene]-3-phenyl- (9CI) (CA INDEX NAME)

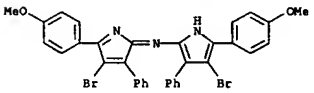


IT 490035-86-4P 490035-87-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of boron difluoride chelates of tetraarylazadipyrromethenes and evidence for their photodynamic therapeutic behavior)
RN 490035-86-4 HCAPLUS
CN 1H-Pyrrol-2-amine, 4-bromo-N-(4-bromo-3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)

L7 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)

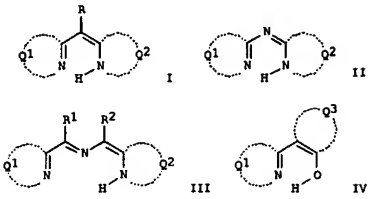


RN 490035-87-5 HCAPLUS
CN 1H-Pyrrol-2-amine, 4-bromo-N-[4-bromo-5-(4-methoxyphenyl)-3-phenyl-2H-pyrrol-2-ylidene]-5-(4-methoxyphenyl)-3-phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 12 Feb 1999
GI



AB The recording medium has a recording layer containing a metal complex obtained form a metal compound and a cyanine dye I, II, III, or IV (Q1, Q2 = atomic group required to form heterocyclic group with C and N; R, R1, R2 = H, substituent; R, R1, R2 and Q1, or Q2 form heterocyclic group; Q3 = atomic group required to form active H-containing cyclic enol) or a merocyanine dye. The metal-dye complex shows high solubility and good light resistance.

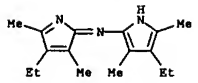
ACCESSION NUMBER: 1999:97357 HCAPLUS
DOCUMENT NUMBER: 130:189480
TITLE: Optical recording medium using (mero)cyanine dye-metal complex with good light resistance
INVENTOR(S): Monden, Atsushi; Shinkai, Masahiro; Yamamiya, Shiro; Sasaki, Seishichi; Abe, Yoshio
PATENT ASSIGNEE(S): TDK Electronics Co., Ltd., Japan; Dainichi Seika Kogyo K. K.
SOURCE: Jpn. Kokai Tokkyo Koho, 42 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11034500	A2	19990209	JP 1997-207234	19970716
JP 3328169	B2	20020924		

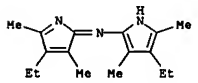
PRIORITY APPLN. INFO.: JP 1997-207234 19970716

IT **220506-94-5DP**, transition metal complexes
RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)
(optical recording medium using (mero)cyanine dye-metal complex with good light resistance)
RN 220506-94-5 HCAPLUS
CN 1H-Pyrrol-2-amine, 4-ethyl-N-(4-ethyl-3,5-dimethyl-2H-pyrrol-2-ylidene)-3,5-dimethyl- (9CI) (CA INDEX NAME)

L7 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT **220506-94-5P**
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(optical recording medium using (mero)cyanine dye-metal complex with good light resistance)
RN 220506-94-5 HCAPLUS
CN 1H-Pyrrol-2-amine, 4-ethyl-N-(4-ethyl-3,5-dimethyl-2H-pyrrol-2-ylidene)-3,5-dimethyl- (9CI) (CA INDEX NAME)

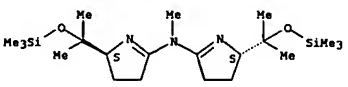


L7 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 27 Aug 1998
AB Copper(I) complexes derived from semicorrins, azasemicorrins and bisoxazolines are efficient catalysts for the enantioselective cyclopropanation of silyl enol ethers with diazoacetates. The resulting cyclopropanes can be converted to γ-keto carboxylates by acid-induced ring cleavage. In this way Me (2-oxocyclopentyl)- and (2-oxocyclohexyl)acetates were prepared with up to 90 and 80% ee, resp.

ACCESSION NUMBER: 1998:544631 HCAPLUS
DOCUMENT NUMBER: 129:275655
TITLE: Enantioselective copper-catalyzed cyclopropanation of silyl enol ethers
AUTHOR(S): Ebinger, Alexander; Heinz, Thomas; Umbricht, Gisela; Pfaltz, Andreas
CORPORATE SOURCE: Max-Planck-Institut fur Kohlenforschung, Mulheim, 45470, Germany
SOURCE: Tetrahedron (1998), 54(35), 10469-10480
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 129:275655

IT **141362-74-5**
RL: CAT (Catalyst use); USES (Uses)
(stereoselective copper-catalyzed cyclopropanation of silyl enol ethers)
RN 141362-74-5 HCAPLUS
CN 2H-Pyrrol-5-amine, N-[(2S)-3,4-dihydro-2-[1-methyl-1-[(trimethylsilyl)oxy]ethyl]-2H-pyrrol-5-yl]-3,4-dihydro-N-methyl-2-[1-methyl-1-[(trimethylsilyl)oxy]ethyl]-, (5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



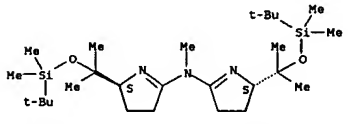
REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 30 Jul 1997
AB Chiral semicorrin-Cu complexes are efficient enantioselective catalysts for intramol. cyclopropanation reactions of diazomethyl alkenyl ketones leading to bicyclo[3.1.0]hexan-2-ones (up to 85% ee) and bicyclo[4.1.0]heptan-2-ones (up to 95% ee).

ACCESSION NUMBER: 1997:474280 HCAPLUS
DOCUMENT NUMBER: 127:277940
TITLE: Enantioselective intramolecular cyclopropanation catalyzed by semicorrin-copper complexes
AUTHOR(S): Pique, Carmen; Fahndrich, Bruno; Pfaltz, Andreas
CORPORATE SOURCE: Inst. Org. Chemie, Univ. Basel, Basel, CH-4056, Switz.
SOURCE: Synlett (1995), (Spec. Issue), 491-492
CODEN: SYNLES; ISSN: 0936-5214
PUBLISHER: Thieme
DOCUMENT TYPE: Journal
LANGUAGE: English

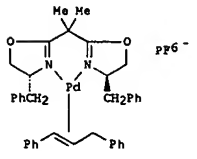
IT **141362-75-6**
RL: CAT (Catalyst use); USES (Uses)
(enantioselective intramol. cyclopropanation catalyzed by semicorrin in presence of copper triflate for diazomethyl alkenyl ketones)
RN 141362-75-6 HCAPLUS
CN 2H-Pyrrol-5-amine, 2-[1-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-methylethyl]-N-[(2S)-2-[1-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-methylethyl]-3,4-dihydro-2H-pyrrol-5-yl]-3,4-dihydro-N-methyl-, (5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 29 Apr 1995
GI



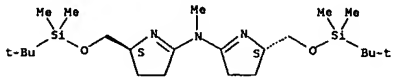
I

AB Allylpalladium complexes with chiral bis(dihydrooxazole) ligands were studied as catalysts for the enantioselective allylic substitution reaction of (±)-1,3-diphenylprop-2-enyl acetate with the anion of di-Me malonate. Using enantiomerically pure (S,E)-1-(4-tolyl)-3-phenylprop-2-enyl acetate as substrate, the reaction was shown to proceed by a clean 'syn' displacement of acetate by di-Me malonate (Scheme 6). [PdII(η3-allyl)] complex and the analogous [Pd(η3-1,3-diphenylallyl)] complex, both containing the same bis(dihydrooxazole) ligand, were characterized by X-ray structure anal. and by NMR spectroscopy in solution. The structural data reveal that steric interactions of the allyl system with the chiral ligand result in selective electronic activation of one of the allylic termini. The higher reactivity of one allylic terminus toward nucleophilic attack is reflected in a significantly longer Pd-C bond and a shift of the corresponding 13C-NMR resonance to higher frequency. One such catalyst is [(1,2,3-η)-1,3-diphenyl-2-propenyl][2,2'-(1-methylethylidene)bis(4,5-dihydro-4-[phenylmethyl]oxazole)-N3,N3']palladium(1+) hexafluorophosphate(1-) (I).

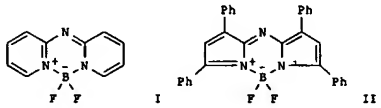
ACCESSION NUMBER: 1995:517650 HCAPLUS
DOCUMENT NUMBER: 123:227756
TITLE: Enantioselective allylic substitution catalyzed by chiral {bis(dihydrooxazole)}palladium complexes: catalyst structure and possible mechanism of enantioselection
AUTHOR(S): von Matt, Peter; Lloyd-Jones, Guy C.; Minidis, Alexander B. E.; Pfaltz, Andreas; Macko, Ludwig; Neuburger, Markus; Zehnder, Margareta; Rueegger, Heinz; Pregosin, Paul S.
CORPORATE SOURCE: Inst. Org. Chem., Univ. Basel, Basel, CH-4056, Switz.
SOURCE: Helvetica Chimica Acta (1995), 78(2), 265-84
CODEN: HCACAV; ISSN: 0018-019X
PUBLISHER: Verlag Helvetica Chimica Acta
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 123:227756
IT 141362-71-2
RL: CAT (Catalyst use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses)
([bis(dihydrooxazole)]palladium-catalyzed stereoselective allylic

L7 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)
substitution)
RN 141362-71-2 HCAPLUS
CN 2H-Pyrrol-5-amine, 2-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-N-(2-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3,4-dihydro-2H-pyrrol-5-yl]-3,4-dihydro-N-methyl-, (S-(R*,R*))- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



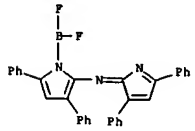
L7 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 10 Dec 1994
GI



I II

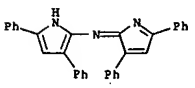
AB Boron trifluoride reacted with 2,2'-dipyridylamine and its N-Me and 6,6'-dimethyl derivs. and 3,3',5,5'-tetraphenyl-6-azapyrromethene to give fluorescent β-azavinamidine (1,3,5-triazapenta-1,3-diene) dyes: 10-azapyridomethene-BF2 complex (I) (λf 422 nm, λlas 426 nm), its quaternary 10-Me tetrafluoroborate and 4,6-di-Me derivs. (λf 362 and 416 nm, resp.), and 1,3,5,7-tetraphenyl-8-azapyrromethene-BF2 complex (II) (λf 696 nm). Treating 3,3',4,4'-tetraphenyl-5,5',6-trimethylpyrromethene (prepared in situ from Et 3,4-diphenyl-5-methylpyrrole-2-carboxylate and acetyl chloride) with BF3 gave 1,2,6,7-tetraphenyl-3,5,8-trimethylpyrromethene-BF2 complex. Absorption for the vinamidine chromophore differed from that for the β-azavinamidine chromophore by a hypsochromic shift of 86 nm in a comparison of a pyridomethene-BF2 complex with its 10-aza derivative I and by a bathochromic shift of 105 nm in a comparison of a pyrromethene-BF2 complex with the 8-azapyrromethene-BF2 complex II.

ACCESSION NUMBER: 1994:682305 HCAPLUS
DOCUMENT NUMBER: 121:282305
TITLE: Fluorescent tricyclic β-azavinamidine-BF2 complexes
AUTHOR(S): Sathyamoorthi, Govindarao; Soong, Mou Ling; Ross, Timothy W.; Boyer, Joseph H.
CORPORATE SOURCE: Dep. Chem., Univ. New Orleans, New Orleans, LA, 70148, USA
SOURCE: Heteroatom Chemistry (1993), 4(6), 603-8
CODEN: HETCE9; ISSN: 1042-7163
DOCUMENT TYPE: Journal
LANGUAGE: English
IT 154675-05-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation of fluorescent tricyclic β-azavinamidine-fluoroboron complexes)
RN 154675-05-5 HCAPLUS
CN 1H-Pyrrol-2-amine, 1-(difluoroboryl)-N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)



IT 40047-93-6P

L7 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(reaction of nitrophenylbutyrophenone with ammonium formate for azapyrromethene synthesis)
RN 40047-93-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)

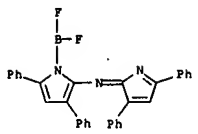


L7 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 28 May 1994
AB Polymeric microparticles incorporating ≥2 fluorescent dyes having overlapping excitation and emission spectra, resulting in fluorescent microparticles with a desired effective Stoke shift are prepared and used for anal. of biomols., such as DNA and RNA. The fluorescent dyes are polyazaindacene, coumarin, hydrocarbon or substituted hydrocarbon dyes, etc. Thus, 4,4-difluoro-5,7-diphenyl-3-(pyrrol-2-yl)-4-bora-3a,4a-diaza-s-indacene (I) was prepared from 3,5-diphenylpyrrole-2-carboxaldehyde and 2,2'-bipyrrole, and an analog of I (II) was prepared from 3,5-diphenylpyrrole-2-carboxaldehyde and 2,4-dimethylpyrrole. A carboxylate-modified latex microparticle incorporating I and II was prepared and conjugated to oligonucleotide probes to engrailed, inverted and HOX genes for detecting developmentally important mRNA in Zebrafish embryos.
ACCESSION NUMBER: 1994:265320 HCAPLUS
DOCUMENT NUMBER: 120:265320
TITLE: Fluorescent microparticles with controllable enhanced Stokes shift
INVENTOR(S): Brinkley, John M.; Haugland, Richard P.; Singer, Victoria L.
PATENT ASSIGNEE(S): Molecular Probes, Inc., USA
SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 11
PATENT INFORMATION:

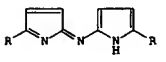
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9323492	A1	19931125	WO 1993-US4334	19930507
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5326692	A	19940705	US 1992-882299	19920513
US 5326692	B1	19960430		
EP 596098	A1	19940511	EP 1993-913815	19930507
EP 596098	B1	19980617		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
JP 07508309	T2	19950914	JP 1994-502684	19930507
JP 3442777	B2	20030902		
AT 167511	E	19980715	AT 1993-913815	19930507
CA 2113106	C	20001024	CA 1993-2113106	19930507
JP 2004002851	A2	20040108	JP 2003-128429	20030506
JP 3689412	B2	20050831		

PRIORITY APPLN. INFO.: US 1992-882299 A 19920513
JP 1994-502684 A3 19930507
WO 1993-US4334 W 19930507
OTHER SOURCE(S): MARPAT 120:265320
IT **154675-05-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, fluorescent microparticles incorporating, for DNA and RNA anal.)
RN 154675-05-5 HCAPLUS
CN 1H-Pyrrol-2-amine, 1-(difluoroboryl)-N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)

L7 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)

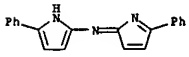


L7 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 02 Mar 1993
GI



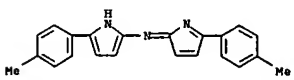
I

AB 5,5'-Diarylazapyrromethines I (R = Ph, 4-MeC6H4, 4-MeOC6H4, 2-thienyl) are conveniently prepared by the reaction of aryl Grignard reagents RMgBr with succinonitrile.
ACCESSION NUMBER: 1993:80754 HCAPLUS
DOCUMENT NUMBER: 118:80754
TITLE: A convenient synthesis of azapyrromethines
AUTHOR(S): Bird, Clive W.; Jiang, Lu
CORPORATE SOURCE: Dep. Chem., King's Coll., The Strand, WC2R 2LS, UK
SOURCE: Tetrahedron Letters (1992), 33(47), 7253-4
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 118:80754
IT **145763-14-0P 145763-15-1P 145763-16-2P 145763-17-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 145763-14-0 HCAPLUS
CN 1H-Pyrrol-2-amine, 5-phenyl-N-(5-phenyl-2H-pyrrol-2-ylidene)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

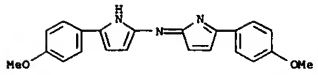
RN 145763-15-1 HCAPLUS
CN 1H-Pyrrol-2-amine, 5-(4-methylphenyl)-N-[5-(4-methylphenyl)-2H-pyrrol-2-ylidene]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

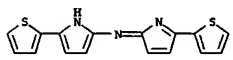
RN 145763-16-2 HCAPLUS
CN 1H-Pyrrol-2-amine, 5-(4-methoxyphenyl)-N-[5-(4-methoxyphenyl)-2H-pyrrol-2-ylidene]-, monohydrochloride (9CI) (CA INDEX NAME)

L7 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



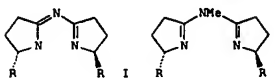
● HCl

RN 145763-17-3 HCAPLUS
CN 1H-Pyrrol-2-amine, 5-(2-thienyl)-N-[5-(2-thienyl)-2H-pyrrol-2-ylidene]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

L7 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 13 Jun 1992
GI



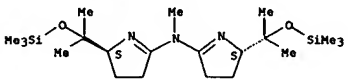
AB C2-sym. 5-aza-semicorrins, e.g., I (R = CH2OSiMe2CMe3, CMe2OSiMe3), are readily prepared in enantiomerically pure form starting from pyroglutamic acid. Methylation at N(5) leads to neutral bidentate nitrogen ligands, such as, II. Copper(I) and palladium(II) complexes of these ligands are efficient enantioselective catalysts for the cyclopropanation of olefins and for allylic nucleophilic substitutions.

ACCESSION NUMBER: 1992:235378 HCAPLUS
DOCUMENT NUMBER: 116:235378
TITLE: 5-Aza-semicorrins: A new class of bidentate nitrogen ligands for enantioselective catalysis
AUTHOR(S): Leutenegger, Urs; Umbricht, Gisela; Fahrni, Christoph; Von Matt, Peter; Pfaltz, Andreas
CORPORATE SOURCE: Inst. Org. Chem., Univ. Basel, Basel, CH-4056, Switz.
SOURCE: Tetrahedron (1992), 48(11), 2143-56
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 116:235378

IT **141362-74-5 141362-75-6**
RL: CAT (Catalyst use); USES (Uses)
(catalyst from copper and, for enantioselective cyclopropanation of styrene with diazoacetate, preparation of)

RN 141362-74-5 HCAPLUS
CN 2H-Pyrrol-5-amine, N-[(2S)-3,4-dihydro-2-[1-methyl-1-[(trimethylsilyl)oxy]ethyl]-2H-pyrrol-5-yl]-3,4-dihydro-N-methyl-2-[1-methyl-1-[(trimethylsilyl)oxy]ethyl]-, (5S)- (9CI) (CA INDEX NAME)

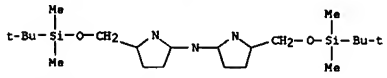
Absolute stereochemistry.



RN 141362-75-6 HCAPLUS
CN 2H-Pyrrol-5-amine, 2-[1-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-methylethyl]-N-[(2S)-2-[1-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-methylethyl]-3,4-dihydro-2H-pyrrol-5-yl]-3,4-dihydro-N-methyl-, (5S)- (9CI) (CA INDEX NAME)

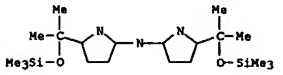
Absolute stereochemistry.

L7 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 141362-73-4 HCAPLUS
CN 2H-Pyrrol-5-amine, N-[3,4-dihydro-2-[1-methyl-1-[(trimethylsilyl)oxy]ethyl]-2H-pyrrol-5-yl]-3,4-dihydro-2-[1-methyl-1-[(trimethylsilyl)oxy]ethyl]-, [S-[R*,R*-(Z)]]- (9CI) (CA INDEX NAME)

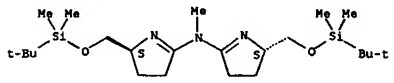


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

IT **141362-79-0P 141362-81-4P 141362-84-7P**
141380-56-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 141362-79-0 HCAPLUS
CN 2H-Pyrrol-5-amine, 2-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-N-[2-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3,4-dihydro-2H-pyrrol-5-yl]-3,4-dihydro-N-methyl-, monohydriodide, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

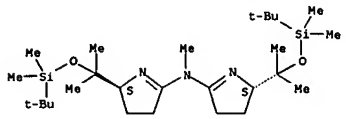


● HI

RN 141362-81-4 HCAPLUS
CN 2H-Pyrrol-5-amine, N-[3,4-dihydro-2-[1-methyl-1-[(trimethylsilyl)oxy]ethyl]-2H-pyrrol-5-yl]-3,4-dihydro-N-methyl-2-[1-methyl-1-[(trimethylsilyl)oxy]ethyl]-, monohydriodide, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

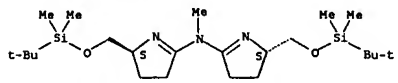
L7 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



IT **141362-71-2**
RL: CAT (Catalyst use); USES (Uses)
(catalysts from copper or palladium and, for enantioselective cyclopropanation or allylic alkylation, preparation of)

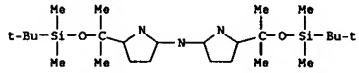
RN 141362-71-2 HCAPLUS
CN 2H-Pyrrol-5-amine, 2-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-N-[2-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3,4-dihydro-2H-pyrrol-5-yl]-3,4-dihydro-N-methyl-, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **141362-67-6P 141362-70-1P 141362-73-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and methylation of)

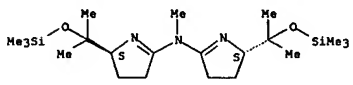
RN 141362-67-6 HCAPLUS
CN 2H-Pyrrol-5-amine, 2-[1-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-methylethyl]-N-[2-[1-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-methylethyl]-3,4-dihydro-2H-pyrrol-5-yl]-3,4-dihydro-, [S-[R*,R*-(Z)]]- (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 141362-70-1 HCAPLUS
CN 2H-Pyrrol-5-amine, 2-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-N-[2-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3,4-dihydro-2H-pyrrol-5-yl]-3,4-dihydro-, [S-[R*,R*-(Z)]]- (9CI) (CA INDEX NAME)

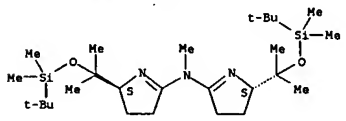
L7 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



● HI

RN 141362-84-7 HCAPLUS
CN 2H-Pyrrol-5-amine, 2-[1-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-methylethyl]-N-[2-[1-[[(1,1-dimethylethyl)dimethylsilyl]oxy]-1-methylethyl]-3,4-dihydro-2H-pyrrol-5-yl]-3,4-dihydro-N-methyl-, monohydriodide, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

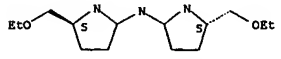
Absolute stereochemistry.



● HI

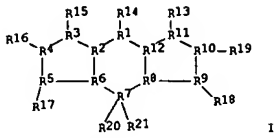
RN 141380-56-5 HCAPLUS
CN 2H-Pyrrol-5-amine, 2-(ethoxymethyl)-N-[2-(ethoxymethyl)-3,4-dihydro-2H-pyrrol-5-yl]-3,4-dihydro-, [S-[R*,R*-(Z)]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

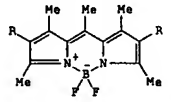


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

L7 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 09 Mar 1991
GI



I



II

AB Compds. having the general formula I (R1-R21 = organic and/or inorg. groups) are described; their use as lasing dyes and as agents for photodynamic therapy for neoplastic growths is discussed. Addnl., methods for producing the compds. described by the general formula II with R = H or with R = -SO3- Na+ are claimed. The compound described by the general formula II with R = -SO3-Na+ was used as a laser dye (lasing threshold 10 kV; lasing wavelength range 545-585 nm) and as a photodynamic therapy agent against cancerous tumors in female Sprague-Dawley rats (tumor necrosis observed within 4 days; >75% tumor destruction) and in 2 human female subjects (substantial reduction in growth size over 3-6 wk).

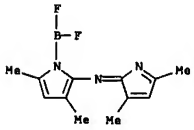
ACCESSION NUMBER: 1991:91588 HCAPLUS
DOCUMENT NUMBER: 114:91588
TITLE: Fluorescent chemical compositions useful as laser dyes and photodynamic therapy agents, and methods for their use
INVENTOR(S): Boyer, Joseph H.; Morgan, Lee Roy
PATENT ASSIGNEE(S): USA
SOURCE: Eur. Pat. Appl., 41 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 361936	A2	19900404	EP 1989-309921	19890928
EP 361936	A3	19910403		
EP 361936	B1	19960124		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4916711	A	19900410	US 1988-251188	19880929
AT 133418	E	19960215	AT 1989-309921	19890928

L7 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)

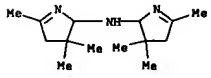
JP 02196865	A2	19900803	JP 1989-252518	19890929
JP 2880534	B2	19990412		

PRIORITY APPLN. INFO.: US 1988-251188 A 19880929
OTHER SOURCE(S): MARPAT 114:91588
IT 130876-51-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in tricyclic compound preparation)
RN 130876-51-6 HCAPLUS
CN 1H-Pyrrol-2-amine, 1-(difluoroboryl)-N-(3,5-dimethyl-2H-pyrrol-2-ylidene)-3,5-dimethyl- (9CI) (CA INDEX NAME)

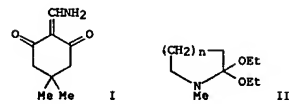


L7 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 17 Aug 1990
AB Treatment of 2,2-disubstituted 1,4-diketones with NH3(1) gives high yields of isolable isomeric 2-hydroxy-3,4-dihydro-2H-pyrroles, many of which can be dehydrated to 3H-pyrroles together, in certain cases, with isomeric methylenepyrrolines. When heated in HOAc with NH4OAc, the diketones yield 2H-pyrroles, sometimes in admixt. with 3H-pyrroles, from which they are formed by rearrangement. The diketones are prepared from nitro ketones by the Nef reaction, as well as by other methods.

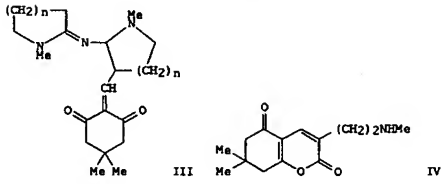
ACCESSION NUMBER: 1990:458827 HCAPLUS
DOCUMENT NUMBER: 113:58827
TITLE: Synthesis and chemistry of azolenines. Part 16. Preparation of both 3H- and 2H-pyrroles from 2,2-disubstituted 1,4-diketones via the Paal-Knorr reaction, and isolation of intermediate 2-hydroxy-3,4-dihydro-2H-pyrroles
AUTHOR(S): Lui, Kon Hung; Sammes, Michael P.
CORPORATE SOURCE: Dep. Chem., Univ. Hong Kong, Hong Kong
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1990), (3), 457-60
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:58827
IT 128260-14-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 128260-14-0 HCAPLUS
CN 2H-Pyrrol-2-amine, N-(3,4-dihydro-3,3,5-trimethyl-2H-pyrrol-2-yl)-3,4-dihydro-3,3,5-trimethyl- (9CI) (CA INDEX NAME)



L7 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 09 Jul 1988
GI



I II

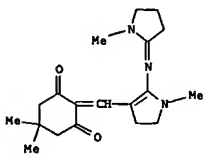


III IV

AB Treating cyclohexanedione I with amide acetals II (n = 1, 2) in PhMe gave 80 and 70% pyrrole and piperidine derivs. III which (n = 1) was heated in aqueous HCl to give 80% coumarin derivative IV.

ACCESSION NUMBER: 1988:406372 HCAPLUS
DOCUMENT NUMBER: 109:6372
TITLE: Acetals of lactams and acid amides. 49. Reaction of N-methyl-2-pyrrolidone and N-methyl-2-piperidone acetals with enamino diketones
AUTHOR(S): Shanazarov, A. K.; Solov'eva, N. P.; Chistyakov, V. V.; Sheinker, Yu. N.; Granik, V. G.
CORPORATE SOURCE: Vses. Nauchno-Issled. Khim. Farm. Inst., Moscow, 119815, USSR
SOURCE: Khimiya Geterotsiklicheskikh Soedinenii (1987), (11), 1477-82
CODEN: KGSSAQ; ISSN: 0453-8234
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 109:6372
IT 114920-62-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and intramol. cyclization of, oxocoumarin from)
RN 114920-62-6 HCAPLUS
CN 1,3-Cyclohexanedione, 2-[[4,5-dihydro-1-methyl-2-[(1-methyl-2-pyrrolidinylidene)amino]-1H-pyrrol-3-yl]methylene]-5,5-dimethyl- (9CI) (CA INDEX NAME)

L7 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L7 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

ED Entered STN: 28 Nov 1986

AB Treatment of DMF or Me3CCONMe2 with ClCONCO in the presence of SbCl5 afforded title salts Me2NCR:N+CO SbCl6- (I; R = H, Me3C). An X-ray diffraction anal. of I (R = H) confirmed the proposed structure. The heterocumulenes I reacted with aldehydes, ketones and tertiary carboxamides to give amino-substituted 2-azaallenium salts (e.g., Me2NCH:N+:CPh2 SbCl6-) in high yields.

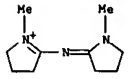
ACCESSION NUMBER: 1986:590190 HCAPLUS
DOCUMENT NUMBER: 105:190190
TITLE: Amino-substituted 1-oxa-3-azabutatrienium salts: preparation, structure and reaction with carbonyl compounds
AUTHOR(S): Mueller, Edgar; Orama, Olli; Huttner, Gottfried; Jochims, Johannes C.
CORPORATE SOURCE: Fak. Chem., Univ. Konstanz, Konstanz, D-7750, Fed. Rep. Ger.
SOURCE: Tetrahedron (1985), 41(24), 5901-12
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 105:190190

IT **104543-59-1P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 104543-59-1 HCAPLUS
CN 2H-Pyrrolium, 3,4-dihydro-1-methyl-5-[(1-methyl-2-pyrrolidinylidene)amino]-, (OC-6-11)-hexachloroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

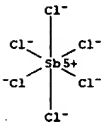
CRN 104543-58-0
CMF C10 H18 N3



CM 2

CRN 17949-89-2
CMF Cl6 Sb
CCI CCS

L7 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



L7 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN

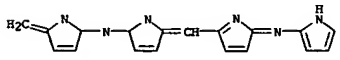
ED Entered STN: 12 May 1984

AB Porphinoids, both existing and hypothetical systems, are represented by graphs at the nearest-neighbor level of approximation By dimer covering of these graphs characteristic and reference polynomials are obtained and the topol. resonance energy is calculated Aromatic stabilization of porphyrins is mainly due to the high topol. reesonance energy value of the pyrrole-type rings, while aromatic stabilization of phthalocyanines is due mainly to high resonance stabilization of the indole-type rings.

ACCESSION NUMBER: 1981:406242 HCAPLUS
DOCUMENT NUMBER: 95:6242
TITLE: On the topological resonance energy of porphins and related structures
AUTHOR(S): Ilic, P.; Trinajstic, N.
CORPORATE SOURCE: "Rugjer Boskovic" Inst., Zagreb, 41001, Yugoslavia
SOURCE: Croatica Chemica Acta (1981), 53(4), 591-9
CODEN: CCACAA; ISSN: 0011-1643
DOCUMENT TYPE: Journal
LANGUAGE: English

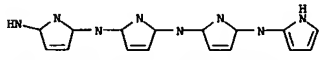
IT **77889-51-1 77889-52-2 77889-58-8 77889-59-9**
RL: PRP (Properties)
(topol. resonance energy of)

RN 77889-51-1 HCAPLUS
CN 1H-Pyrrol-2-amine, N-[5-[[5-[(2-methylene-2H-pyrrol-5-yl)amino]-2H-pyrrol-2-ylidene]methyl]-2H-pyrrol-2-ylidene]- (9CI) (CA INDEX NAME)



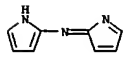
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 77889-52-2 HCAPLUS
CN 1H-Pyrrol-2-amine, N-[5-[[5-[(5-amino-2H-pyrrol-2-ylidene)amino]-2H-pyrrol-2-ylidene]amino]-2H-pyrrol-2-ylidene]- (9CI) (CA INDEX NAME)



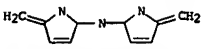
ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

RN 77889-58-8 HCAPLUS
CN 1H-Pyrrol-2-amine, N-2H-pyrrol-2-ylidene- (9CI) (CA INDEX NAME)



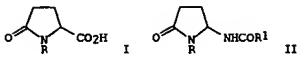
RN 77889-59-9 HCAPLUS
CN 2H-Pyrrol-5-amine, 2-methylene-N-(2-methylene-2H-pyrrol-5-yl)- (9CI) (CA INDEX NAME)

L7 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)

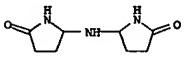


ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

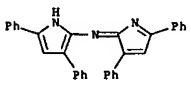
L7 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 12 May 1984
GI



AB Two routes to new 2-pyrrolidinones having various N functions at the 5-position were described. The modified Curtius reaction of pyroglutamic acid derivs. I (R = H, CO2CH2Ph) with diphenylphosphoryl azide gave 5-alkoxycarbonyl-amino-2-pyrrolidinones II (R = H; R1 = Me3C, CO2CHPh, CH2Ph) in one step. Furthermore, the substitution reaction of 5-ethoxy-2-pyrrolidinone with nucleophiles (amines, carbamates, amide, indole, and diethylaniline) efficiently gave 5-substituted-2-pyrrolidinones. 5-Amino-2-pyrrolidinone was also prepared
ACCESSION NUMBER: 1981:47054 HCAPLUS
DOCUMENT NUMBER: 94:47054
TITLE: Synthesis of 5-amino-2-pyrrolidinone and its derivatives
AUTHOR(S): Kosugi, Yoshiyuki; Hamaguchi, Humiko; Nagasaka, Tatsuo; Ozawa, Naganori; Ohki, Sadao
CORPORATE SOURCE: Tokyo Coll. Pharmacy, Hachioji, 192-03, Japan
SOURCE: Heterocycles (1980), 14(9), 1245-9
CODEN: HTCYAM; ISSN: 0385-5414
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 94:47054
IT 76284-19-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 76284-19-0 HCAPLUS
CN 2-Pyrrolidinone, 5,5'-iminobis- (9CI) (CA INDEX NAME)



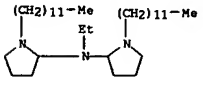
L7 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 12 May 1984
GI For diagram(s), see printed CA Issue.
AB The title pyrrolinone (I; R = R1 = H, R2 = Ph) (II), its N-methyl analog I (R = Me, R1 = H, R2 = Ph) (III) and I (R = H, R1 = R2 = Ph) were prepared by treating a keto amide R2COCH2CHPhCONH2 with ammonium acetate either with heating or with acid catalysis. Thus PhCOCH2CHPhCONH2 from cleavage of 3,5-diphenyl-2(5H)-furanone (IV) was treated with AcONH4 to give II; if concentrated solns. were used, the dimer V (X = NH) was the principal product. Conversely, preparation of III requires concentrated solns. and III does not dimerize, probably for steric reasons. The analogous cyclization with PhCOCH2CHPhCO2H to give IV requires dehydration by Ac2O; the dimer V (X = O) occurs with a trace of base. Treating II or I (R = H, R1 = R2 = Ph) with AcCl gives VI; III under the same conditions does not react.
ACCESSION NUMBER: 1973:84166 HCAPLUS
DOCUMENT NUMBER: 78:84166
TITLE: 3,5-Diphenyl-3-pyrrolin-2-one and related compounds. Dimerization and acylation
AUTHOR(S): Rio, Guy; Masure, Daniel
CORPORATE SOURCE: Univ. Paris VI, Paris, Fr.
SOURCE: Bulletin de la Societe Chimique de France (1972), (12), 4604-10
CODEN: BSCFAS; ISSN: 0037-8968
DOCUMENT TYPE: Journal
LANGUAGE: French
IT 40047-93-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 40047-93-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)



L7 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 12 May 1984
GI For diagram(s), see printed CA Issue.
AB The light stability of polyolefins such as polypropylene (I) is increased by blending the polymer with N,N-bis(3-stearamidopropyl)methylamine (II), e.g. 0.29% tertiary amine N content in the polymer), 1,3-bis(N-butyl-4-piperidyl)propane, N,N'-bis(3-stearamidopropyl)piperazine, III, or a similar tertiary amine. The stabilized I is especially useful for fibers and films that retain much of their tensile strength during prolonged exposure to light. Thus, 200 g stearic acid was heated to 125°, treated with 50.8 g [H2N(C H2)3]2NMe during 5 min, heated to 175° during 6 hr, cooled under N, re crystallized from 1:1 MeOH-acetone, and dried in vacuo to give 210 g II, m. 96-8°. A 3:37 II-I mixture was prepared and extruded to give fibers having tensile strength 3.5g/denier. After exposure to sunlight (50,000 Langley units), the tensile strength was 1.4 g/denier. A control sample of I containing 0.5% 2-hydroxy-4-octoxybenzophenone as the light stabilizer had no tensile strength after the same exposure to sunlight.
ACCESSION NUMBER: 1970:44549 HCAPLUS
DOCUMENT NUMBER: 72:44549
TITLE: Stabilized polyolefins
INVENTOR(S): Bonkowski, Joseph E.
PATENT ASSIGNEE(S): Hercules Inc.
SOURCE: Ger. Offen., 24 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1923747		19691211	DE 1969-1923747	19690509
FR 2009878			FR	
GB 1230293			GB	
US 3547875		19701215	US	19690411
PRIORITY APPLN. INFO.:			US	19680513
			US	19690411

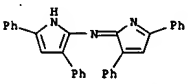
IT 26150-32-3
RL: USES (Uses)
(light stabilizers, for olefin polymers)
RN 26150-32-3 HCAPLUS
CN Pyrrolidine, 2,2'-(ethylimino)bis[1-dodecyl- (8CI) (CA INDEX NAME)



L7 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 22 Apr 2001
AB Di- and tetrasubstituted 2-pyrroleazamethine dyes were prepared by the interaction of the appropriate propionitrile with a H2NOH salt. Thus, 4.77 g. BzCH2CH2CN, 4.2 g. H2NOH.HCl (Ia) and 20 cc. EtOH were refluxed 1 hr. to give bis(5-phenyl-2-pyrrole)azamethine-2HCl (II) as bronze crystals; purple needles from C5H5N (except where noted the salts were bronze colored and m. above 300°). The mono-HCl m. 242° (from BuOH). The sulfate was bronze. II was also obtained by refluxing for 1.5 hrs. 22 g. BzCH2CH(CN)CO2H, 14 g. Ia, and 100 cc. EtOH. In similar fashion, the following bis 5-substituted 2-pyrroleazamethine-di-HCl derivs. were prepared: p-anisyl, coppery; p-HOC6H4, green; 1-C10H7; 2-C4H3S; and p-tolyl. BzCH2CHPhCN (III) 4.7 g., 1.4 g. Ia, and 20 cc. HOCH2CH2OH (IV) were heated for 2 hrs. at 120° to give bis(3,5-diphenyl-2-pyrrole)azamethine (V), as coppery crystals, m. 286° (from PhNO2). Use of BuOH instead of IV and refluxing for 2 hrs. gave V.2HCl (VI) as a purple solid which acquired a coppery sheen due to hydrolysis of VI to V. V was also prepared by heating 4.7 g. III, 1.4 g. Ia, and 20 cc. HCONH2 in an oil bath at 120°. Gas evolution occurred at 90° (internal temperature), and the temperature rose to 150° when V separated. These products are stable blue dyes used in color photography. BzCH2CH2CN, colorless blades, m. 76° (67% yield); p-MeC6H4COCH2CH2CN, colorless needles, m. 95° (71% yield) (acid m. 144°); p-HOC6H4COCH2CH2CN, needles, m. 157° (95% yield); β-2-furoylpropionitrile, needles, m. 74-6° (acid, fawn needles, m. 119° (95% yield)) were prepared for use in preparation of I. Cf. C.A. 40, 366.3.
ACCESSION NUMBER: 1949:43528 HCAPLUS
DOCUMENT NUMBER: 43:43528
ORIGINAL REFERENCE NO.: 43:7848a-d
TITLE: Azamethine dyes
INVENTOR(S): Knott, Edward B.
PATENT ASSIGNEE(S): Eastman Kodak Co.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

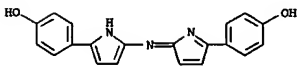
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2469830		19490510	US 1947-748839	19470517

IT 40047-93-6, Azamethine, 2-bis(3,5-diphenylpyrrole)-
857421-42-2, 2H-Pyrrolenine, 5-(p-hydroxyphenyl)-2-[5-(p-hydroxyphenyl)-2-pyrrolylimino]-, dihydrochloride
(preparation of)
RN 40047-93-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)



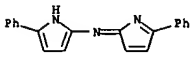
RN 857421-42-2 HCAPLUS
CN 2H-Pyrrolenine, 5-(p-hydroxyphenyl)-2-[5-(p-hydroxyphenyl)-2-

L7 ANSWER 23 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)
pyrrolylimino]-, dihydrochloride (5CI) (CA INDEX NAME)

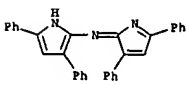


●2 HCl

IT 496875-08-2, 2H-Pyrrolenine, 5-phenyl-2-(5-phenyl-2-pyrrolylimino)- (salts)
RN 496875-08-2 HCAPLUS
CN 1H-Pyrrol-2-amine, 5-phenyl-N-(5-phenyl-2H-pyrrol-2-ylidene)- (9CI) (CA INDEX NAME)

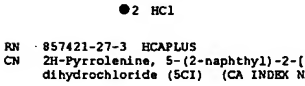


L7 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 22 Apr 2001
GI For diagram(s), see printed CA Issue.
AB BzCH2CH2CN (I) (15.9 g.), 28 g. NH2OH.HCl, and 150 cc. industrial EtOH, refluxed 2 hrs., give 87.7% (crude) bis-2-(5-phenylpyrrole)azamethin-2HCl (II, R = Ph), purple needles from C5H5N, no definite m.p.; EtOH gives the mono-HCl salt; sulfate, bronze (from the sulfate of NH2OH); the following were similarly prepared, R being given: p-tolyl, bronze, 49.8%; p-bromophenyl, gold-green, 41.5%; p-chlorophenyl, purple, 55%; p-hydroxyphenyl, green; p-methoxyphenyl, coppery, 57%; m-hydroxyphenyl, green, 40%; m-methoxyphenyl, coppery, 46.5%; 3,4-dimethoxyphenyl, coppery, 52%; 1-naphthyl, purple, 44.5%; 2-naphthyl, purple, 37%; 2-thienyl, green, 23%. β-2-Furoylpropionitrile and 2-benzofuryl 2-cyanoethyl ketone gave only brown solns. BzCH2CHPhCN (4.7 g.), 1.4 g. NH2OH.HCl, and 20 cc. (CH2OH)2, heated 2 hrs. at 120°, give 6.7% bis-2-(3,5-diphenylpyrrole)azamethin, coppery, m. 286°; with HCONH2 the yield is 17.8%; in BuOH, the deep blue solution on cooling deposits the dye salt, which is hydrolyzed on standing in the air. I does not form a dye on heating in HCO2NH4 in the presence of air. BzCH2CH2CONH2 (7.08 g.) and 5.8 g. NH2OH.HCl in 20 cc. HCONH2, heated at 120°, give 0.5 g. of a dye, brassy plates, which may be bis-3-(2-keto-5-phenyl-2,3-dihydropyrrolylidene) (III); in C5H5N it gives a magenta solution; it sublimes with some decomposition, giving red vapors; it is readily decolorized in C5H5N with aqueous Na dithionite. III results in very small yields in the absence of NH2OH.HCl. The properties of III agree with those of the dye prepared by Klobb from BzCH2CH(CN)CO2H (Ann. chim. phys. 10, 184(1897)). The new dyes exhibit remarkable color reactions with concentrated H2SO4; these are listed. The mechanism of the formation of II is obscure, since no intermediates could be isolated; some possible steps are discussed.
ACCESSION NUMBER: 1948:4135 HCAPLUS
DOCUMENT NUMBER: 42:4135
ORIGINAL REFERENCE NO.: 42:885a-g
TITLE: βCycloylpropionitriles. II. Conversion into bis-2-(5-cyclylpyrrole)azamethin salts
AUTHOR(S): Knott, Edward B.
CORPORATE SOURCE: Kodak Ltd., Wealdstone, UK
SOURCE: Journal of the Chemical Society (1947) 1196-1201
CODEN: JCSOA9; ISSN: 0368-1769
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
IT 40047-93-6, 2H-Pyrrolenine, 2-(3,5-diphenyl-2-pyrrolylimino)-3,5-diphenyl- 857421-03-5, 2H-Pyrrolenine, 5-(p-bromophenyl)-2-[5-(p-bromophenyl)-2-pyrrolylimino]-, dihydrochloride 857421-27-3, 2H-Pyrrolenine, 5-(2-naphthyl)-2-[5-(2-naphthyl)-2-pyrrolylimino]-, dihydrochloride 857421-31-9, 2H-Pyrrolenine, 5-(m-methoxyphenyl)-2-[5-(m-methoxyphenyl)-2-pyrrolylimino]-, dihydrochloride 857421-63-7, 2H-Pyrrolenine, 5-(3,4-dimethoxyphenyl)-2-[5-(3,4-dimethoxyphenyl)-2-pyrrolylimino]-, dihydrochloride 857421-69-3, 2H-Pyrrolenine, 5-(p-chlorophenyl)-2-[5-(p-chlorophenyl)-2-pyrrolylimino]-, dihydrochloride
(preparation of)
RN 40047-93-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)



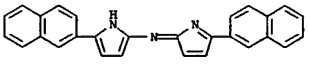
L7 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)

RN 857421-03-5 HCAPLUS
CN 2H-Pyrrolenine, 5-(p-bromophenyl)-2-[5-(p-bromophenyl)-2-pyrrolylimino]-, dihydrochloride (5CI) (CA INDEX NAME)



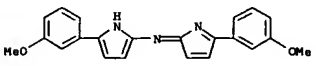
●2 HCl

RN 857421-27-3 HCAPLUS
CN 2H-Pyrrolenine, 5-(2-naphthyl)-2-[5-(2-naphthyl)-2-pyrrolylimino]-, dihydrochloride (5CI) (CA INDEX NAME)



●2 HCl

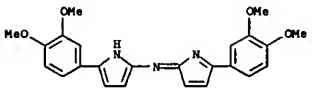
RN 857421-31-9 HCAPLUS
CN 2H-Pyrrolenine, 5-(m-methoxyphenyl)-2-[5-(m-methoxyphenyl)-2-pyrrolylimino]-, dihydrochloride (5CI) (CA INDEX NAME)



●2 HCl

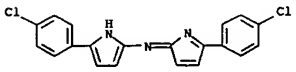
RN 857421-63-7 HCAPLUS
CN 2H-Pyrrolenine, 5-(3,4-dimethoxyphenyl)-2-[5-(3,4-dimethoxyphenyl)-2-pyrrolylimino]-, dihydrochloride (5CI) (CA INDEX NAME)

L7 ANSWER 24 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



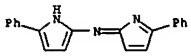
●2 HCl

RN 857421-69-3 HCAPLUS
CN 2H-Pyrrolenine, 5-(p-chlorophenyl)-2-[5-(p-chlorophenyl)-2-pyrrolylimino]-, dihydrochloride (5CI) (CA INDEX NAME)



●2 HCl

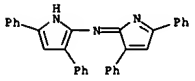
IT 496875-08-2, 2H-Pyrrolenine, 5-phenyl-2-(5-phenyl-2-pyrrolylimino)-, (salts)
RN 496875-08-2 HCAPLUS
CN 1H-Pyrrol-2-amine, 5-phenyl-N-(5-phenyl-2H-pyrrol-2-ylidene)- (9CI) (CA INDEX NAME)



L7 ANSWER 25 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 16 Dec 2001
GI For diagram(s), see printed CA Issue.
AB Tetraaryldipyrromonomethines (I) of the general formula in which R1, are aryl radicals of the benzene or naphthalene series, R2 are H, aryl, alkyl, alkylamino, benzylideneamino or acylamino, and A is N or C-R, in which R is H, alkyl, aralkyl, aryl or heterocyclic, are converted to metal complexes, which dye wool, by reaction with finely divided Cu, Zn, Ni, Co, Cr, and Cd, or their salts. Suitable I are 2,2',4,4'-tetraphenylazadipyrromethine (II), the disulfonic acid (III) of II, 2,2'-diphenyl-4,4'-bis(p-methoxyphenyl) azadipyrromethine, 2,2',4,4'-tetraphenyldipyrromonomethine (IV), 2,2',4-triphenyl-4'-(p-methoxyphenyl)dipyrromonomethine, 2,2'-diphenyl-4,4'-bis(p-dimethylaminophenyl)azadipyrromethine (V), and 2,2',-4,4'-tetraphenyl-meso-phenyldipyrromonomethine. Thus, 1 g. of II, 0.5 g. of Cu(OAc)2 and 50 g. of BuOH are boiled for 1 hr. yielding VI, a coppery, brown crystalline substance which is slightly soluble in PhNO2, dioxane, pyridine, and dimethylformamide forming blue solns. Co, Ni, and Zn-(OAc)2 yield similar products. Substitution of II by IV yields a Cu complex somewhat similar to VI and which can be crystallized from pyridine-MeOH in the form of platelets. When III is dyed on wool from an acid bath and the wool is treated with CuSO4, a green dye is formed. V, on treatment with MeI, yields VII which is converted to a reddish blue Cu complex on reaction with Cu(OAc)2. Cf. C.A. 40, 366.3; 367.4.
ACCESSION NUMBER: 1946:39838 HCAPLUS
DOCUMENT NUMBER: 40:39838
ORIGINAL REFERENCE NO.: 40:7648d-i,7649a-b
TITLE: Metal complexes of tetraaryldipyrromonomethines for dyeing wool
INVENTOR(S): Rogers, Maurice A. T.
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2407346		19460910	US 1943-494120	19430709

IT 40047-93-6, 2-Pyrrolenine, 2-(3,5-diphenyl-2-pyrrylimino)-3,5-diphenyl-
(metal complexes of, and of its disulfonic acid)
RN 40047-93-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)

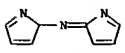


L7 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 16 Dec 2001
GI For diagram(s), see printed CA Issue.
AB A new class of blue coloring matters is described, having the formula in which R is a Ph or naphthyl radical and R' is H or a nonreactive aryl, alkyl, or acylated amino group. These substances may be prepared by heating together in a solvent a 5-nitroso-2,4-diarylpyrrole (I) with a 2,4-diarylpyrrole, in the presence of AcOH or Ac2O; or by heating I (or the HCl salt) to about 190°; or by oxidizing I, e.g., with atmospheric O. For example, 150 parts by weight of 1-nitro-2,4-diphenyl-4-butanone is mixed with 450 parts of HCONH2; heating to 120° causes a blue color and after 1/4 h. at 190°, blue needles form. When the mixture is cooled and diluted with 750 parts of MeOH, a precipitate of 2,2',4,4'-tetraphenylazadipyrromethine (II) forms. If 52 parts of 1-nitro-2,4-bis(p-methoxyphenyl)-4-butanone are heated with 160 of HCO2NH4, 2,2',4,4'-tetrakis(p-methoxyphenyl)azadipyrromethine may be precipitated by addition of 250 parts of EtOH. Similarly 2,2'-diphenyl-4,4'-bis(p-methoxyphenyl)azadipyrromethine may be made starting from 1-nitro-2-(p-methoxyphenyl)4-phenyl-4-butanone, m. 66°; 2,2'-bis(p-methoxyphenyl)-4,4'-diphenylazadipyrromethine, from 1-nitro-2-phenyl-4-(p-methoxyphenyl)-4-butanone, m. 92-3°; 2,2'-diphenyl-4,4'-bis(m-nitrophenyl)azadipyrromethine, from 1-nitro-2-(m-nitrophenyl)-4-phenyl-4-butanone, m. 74.7°; 2,2'-diphenyl-4,4'-bis(m-hydroxyphenyl)azadipyrromethine, from 1-nitro-2-(m-hydroxyphenyl)-4-phenyl-4-butanone; 2,2'-diphenyl-4,4'-bis(p-dimethylaminophenyl)azadipyrromethine, from 1-nitro-2-(p-dimethylaminophenyl)-4-phenyl-4-butanone, m. 114-15°; 2,2'-diphenyl-4,4'-bis(3,4-methylenedioxyphenyl)azadipyrromethine, from 1-nitro-2-(3,4-methylenedioxyphenyl)-4-phenyl-4-butanone [the nitrobutanones were prepared by addition of MeNO2 to the corresponding benzylideneacetophenone]; II from BzCH2CHPhCN (or the oxime, m. 140-1°) [from PhCH:CHCOPh + HCN]; 2,2'-diphenyl-4,4'-bis(p-methoxyphenyl)azadipyrromethine, from 1-(p-methoxyphenyl)-2-benzoylpropionitrile; 2,2'-bis(p-methoxyphenyl)-4,4'-diphenylazadipyrromethine, from p-MeOC6H4COCH2CHPhCN; II, from 1-nitro-2,4-diphenyl-4-butanone oxime, m. 110°; and 2,2'-diphenyl-4,4'-bis(p-dimethylaminophenyl)azadipyrromethine, from 1-nitro-2-(p-dimethylaminophenyl)-4-phenyl-4-butanone oxime, m. 123°. A mixture of 4 parts of 5-nitroso-2,4-diphenylpyrrole (III) HCl and 5 parts of 3-benzamido-2,4-diphenylpyrrole in 250 parts of AcOH, refluxed for 1 h. and diluted with 500 parts of H2O, yields 2,2',4,4'-tetraphenyl-3-benzamidoazadipyrromethine. 5-Amino-2,4-diphenylpyrrole, m. 155-6°, is oxidized by passing air through a boiling EtOH solution to give II. Also 125 parts of III, 110 of 2,4-diphenylpyrrole, 250 of AcOH, and 50 of Ac2O, heated at 100° for 30 min., yield 250 parts of II. II also results from heating 1 part of 1-nitro-2,4-diphenyl-4-butanone with 5 parts of aqueous NH3 (d. 0.88) at 180° for 12 h. An alternate method of preparation involves heating 1 part of the nitriles with 5 parts of HCO2NH4 at 180° in the presence of air: thus, α-(1-naphthyl)-β-benzoylpropionitrile [by addition of HCN to the chalcone, from 1-naphthaldehyde (IV) + MeCOPh], m. 84°, gives 2,2'-diphenyl-4,4'-di(1-naphthyl) azadipyrromethine; α-phenyl-β-(2-naphthoyl)propionitrile [by addition of HCN to the chalcone, m. 106°, from BzH + 2-acetonaphthone (V)], m. 124°, 4,4'-diphenyl-2,2'-di(2-naphthyl)azadipyrromethine; α-(1-naphthyl)-β-(2-naphthoyl)propionitrile [by addition of HCN to the chalcone, m. 161°, from IV + V], 2,2'-di(2-naphthyl)-4,4'-di(1-naphthyl)azadipyrromethine. 2,2'-4-Triphenyl-4'-(1-naphthyl)azadipyrromethine results from refluxing 27 parts of 2-phenyl-4-(1-naphthyl)pyrrole, 28 of 5-nitrosodiphenylpyrrole, 100 of AcOH and 10 of Ac2O. Dye-suitable soluble compds. result from sulfonation (cf. following abstract) and isolation of the Na salts, or from the formation of the quaternary dimethiodides.

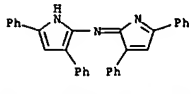
L7 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)
ACCESSION NUMBER: 1946:2224 HCAPLUS
DOCUMENT NUMBER: 40:2224
ORIGINAL REFERENCE NO.: 40:366c-i,367a-c
TITLE: Azadipyrromethines, a new class of dyes
INVENTOR(S): Rogers, Maurice A. T.
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2382914		19450814	US 1942-457228	19420903

IT 873975-69-0, 2-Pyrrolenine, 2-(2-pyrrylimino)-(derivs.)
RN 873975-69-0 HCAPLUS
CN 2-Pyrrolenine, 2-(2-pyrrylimino)- (4CI) (CA INDEX NAME)

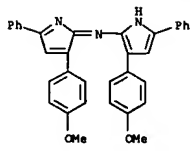


IT 40047-93-6, 2-Pyrrolenine, 2-(3,5-diphenyl-2-pyrrylimino)-3,5-diphenyl- 768377-92-0, 2-Pyrrolenine, 3-(p-methoxyphenyl)-2-[3-(p-methoxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- 858272-95-4, 2-Pyrrolenine, 2-(3,5-diphenyl-2-pyrrylimino)-3-(1-naphthyl)-5-phenyl- 873383-34-7, 2-Pyrrolenine, 3-(1-naphthyl)-2-[3-(1-naphthyl)-5-phenyl-2-pyrrylimino]-5-phenyl- 873383-35-8, 2-Pyrrolenine, 3-(1-naphthyl)-5-(2-naphthyl)-2-[3-(1-naphthyl)-5-(2-naphthyl)-2-pyrrylimino]- 873385-42-3, 2-Pyrrolenine, 3-(3,4-methylenedioxyphenyl)-2-[3-(3,4-methylenedioxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- 873385-43-4, 2-Pyrrolenine, 5-(p-methoxyphenyl)-2-[5-(p-methoxyphenyl)-3-phenyl-2-pyrrylimino]-3-phenyl- 873969-67-6, 2-Pyrrolenine, 5-(2-naphthyl)-2-[5-(2-naphthyl)-3-phenyl-2-pyrrylimino]-3-phenyl- 873975-71-4, 2-Pyrrolenine, 3-(m-hydroxyphenyl)-2-[3-(m-hydroxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- 873975-73-6, 2-Pyrrolenine, 3-(p-dimethylaminophenyl)-2-[3-(p-dimethylaminophenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- 873975-75-8, 2-Pyrrolenine, 2-[3,5-bis(p-methoxyphenyl)-2-pyrrylimino]-3,5-bis(p-methoxyphenyl)- 873975-77-0, 2-Pyrrolenine, 4-benzamido-2-(3,5-diphenyl-2-pyrrylimino)-3,5-diphenyl-
(preparation of)
RN 40047-93-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)

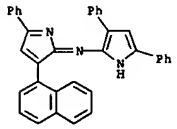


RN 768377-92-0 HCAPLUS
CN 1H-Pyrrol-2-amine, 3-(4-methoxyphenyl)-N-[3-(4-methoxyphenyl)-5-phenyl-2H-pyrrol-2-ylidene]-5-phenyl- (9CI) (CA INDEX NAME)

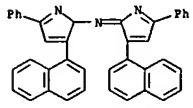
L7 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



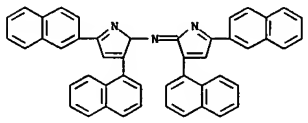
RN 858272-95-4 HCAPLUS
CN 2-Pyrrolenine, 2-(3,5-diphenyl-2-pyrrylimino)-3-(1-naphthyl)-5-phenyl- (4CI) (CA INDEX NAME)



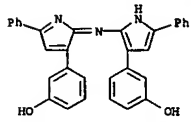
RN 873383-34-7 HCAPLUS
CN 2-Pyrrolenine, 3-(1-naphthyl)-2-[3-(1-naphthyl)-5-phenyl-2-pyrrylimino]-5-phenyl- (4CI) (CA INDEX NAME)



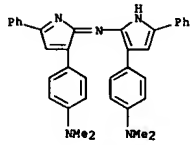
RN 873383-35-8 HCAPLUS
CN 2-Pyrrolenine, 3-(1-naphthyl)-5-(2-naphthyl)-2-[3-(1-naphthyl)-5-(2-naphthyl)-2-pyrrylimino]- (4CI) (CA INDEX NAME)



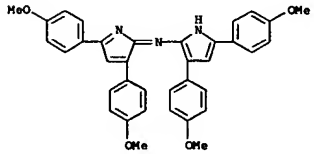
L7 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



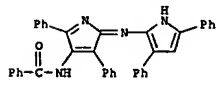
RN 873975-73-6 HCAPLUS
CN 2-Pyrrolenine, 3-(p-dimethylaminophenyl)-2-[3-(p-dimethylaminophenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- (4CI) (CA INDEX NAME)



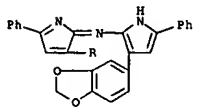
RN 873975-75-8 HCAPLUS
CN 2-Pyrrolenine, 2-[3,5-bis(p-methoxyphenyl)-2-pyrrylimino]-3,5-bis(p-methoxyphenyl)- (4CI) (CA INDEX NAME)

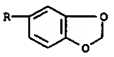


RN 873975-77-0 HCAPLUS
CN 2-Pyrrolenine, 4-benzamido-2-(3,5-diphenyl-2-pyrrylimino)-3,5-diphenyl- (4CI) (CA INDEX NAME)

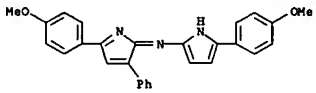


L7 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)
RN 873385-42-3 HCAPLUS
CN 2-Pyrrolenine, 3-(3,4-methylenedioxyphenyl)-2-[3-(3,4-methylenedioxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- (4CI) (CA INDEX NAME)

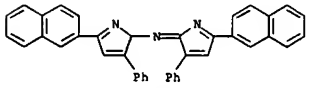




RN 873385-43-4 HCAPLUS
CN 2-Pyrrolenine, 5-(p-methoxyphenyl)-2-[5-(p-methoxyphenyl)-3-phenyl-2-pyrrylimino]-3-phenyl- (4CI) (CA INDEX NAME)



RN 873969-67-6 HCAPLUS
CN 2-Pyrrolenine, 5-(2-naphthyl)-2-[5-(2-naphthyl)-3-phenyl-2-pyrrylimino]-3-phenyl- (4CI) (CA INDEX NAME)

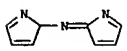


RN 873975-71-4 HCAPLUS
CN 2-Pyrrolenine, 3-(m-hydroxyphenyl)-2-[3-(m-hydroxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- (4CI) (CA INDEX NAME)

L7 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 16 Dec 2001
AB Furfural (I) is converted to furan (II) catalytically in 85-90% yield by passing a mixture of steam and I, in a mol. ratio of 2:1 to 6:1, over ZnO, combined with V, Cr, W, Mo, or U oxides at temps. above 200°. For a typical run, the catalyst (1 l.) was placed in a vertical steel tube and reduced with H at 400°. A mixture of 300 mL. of I and 360 mL. of H2O per h. was pumped through a vaporizer, and the reaction products were passed to a train of condensers held successively at 0° and -60°. An initial temperature of 420° was raised slowly to maintain evolution of 2 mols. of off-gas (mostly H and CO2) per mol. of I admitted. Regeneration of the catalyst with air, followed by reduction with H, resulted in improved activity, and the yield of II (b. 31-2°) remained 85-90%. The catalyst was prepared by addition of 766 g. of (NH4)2CrO4 in 2700 mL. of H2O to 2700 mL. of a solution containing 2100 g. of Zn liquor (containing 55.2% ZnSO4.7H2O) and 225 g. MnSO4.4H2O. The slurry precipitated was neutralized with 330 mL. of 28% NH3, diluted to double volume, and filtered. The precipitate was dried at 110°, ignited for 4 h. at 400°, and formed into 3/16" pellets.
ACCESSION NUMBER: 1946:2223 HCAPLUS
DOCUMENT NUMBER: 40:2223
ORIGINAL REFERENCE NO.: 40:366a-c
TITLE: Furan
INVENTOR(S): Whitman, Gerald M.
PATENT ASSIGNEE(S): E. I. du Pont de Nemours & Co.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2374149		19450417	US 1943-479151	19430313

IT 873975-69-0, 2-Pyrrolenine, 2-(2-pyrrylimino)- (derivs.)
RN 873975-69-0 HCAPLUS
CN 2-Pyrrolenine, 2-(2-pyrrylimino)- (4CI) (CA INDEX NAME)

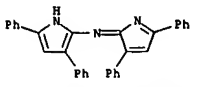


L7 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 16 Dec 2001
GI For diagram(s), see printed CA Issue.
AB The new compds. are useful for dyeing textiles. They are prepared by heating 1-nitromethyl-or 1-cyano-1,3-diaryl-3-propanones (which may contain a nonreactive substituent in position 2) or simple functional derivs. of these ketones, e.g., their oximes, with NH3 or with an NH3-yielding reagent. An oxidizing agent should be present when the 1-cyanopropanones are used. The following compds. were prepared: 2,2'-diphenyl-4,4'-bis-(p-methoxyphenyl)azadipyrromethine; 2,2'-bis(p-methoxyphenyl)-4,4'-diphenylazadipyrromethine; 2,2'-diphenyl-4,4'-bis(m-nitrophenyl)azadipyrromethine; 2,2'-diphenyl-4,4'-bis(m-hydroxyphenyl)azadipyrromethine; 2,2'-diphenyl-4,4'-bis(p-dimethylaminophenyl)azadipyrromethine; 2,2'-diphenyl-4,4'-bis(3,4-methylenedioxyphenyl)azadipyrromethine; 2,2',4,4'-tetrakis(p-methoxyphenyl)azadipyrromethine; 2,2',4,4'-tetraphenylazadipyrromethine. The new class of compds. has the following general formula where each R stands for an aryl radical, substituted or not, the same or different, and each R' stands for H or for a nonreactive substituent, the same or different. The following addnl. compds. of this class were prepared by the use of the substituted pyrroles described in Brit. 554,102-3 (C. A. 39, 310.7), 2,2',4-triphenyl-4'-(p-methoxyphenyl)-azadipyrromethine; 2,2',4,4'-tetraphenyl-3-benzamido-azadipyrromethine; 2,2'-diphenyl-4,4'-di-1-naphthylaza-dipyrromethine; 4,4'-diphenyl-2,2'-di-2-naphthylazadi-pyrromethine; 2,2'-di-2-naphthyl-4,4'-di-1-naphthylaza-dipyrromethine; 2,2',4-triphenyl-4'-(1-naphthyl)azadi-pyrromethine. The preparation of monosulfonic and disulfonic acids of some of these compds. is also described.
ACCESSION NUMBER: 1945:8237 HCAPLUS
DOCUMENT NUMBER: 39:8237
ORIGINAL REFERENCE NO.: 39:1296g-i,1297a-c
TITLE: New coloring matters
INVENTOR(S): Rogers, Maurice A. T.
PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

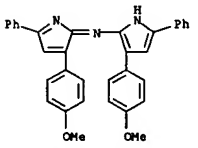
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 554101		19430621	GB 1941-16276	19411217

IT **40047-93-6**, 2-Pyrrolenine, 2-(3,5-diphenyl-2-pyrrylimino)-3,5-diphenyl- **768377-92-0**, 2-Pyrrolenine, 3-(p-methoxyphenyl)-2-[3-(p-methoxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- **858272-71-6**, 2-Pyrrolenine, 2-[3-(1-naphthyl)-5-phenyl-2-pyrrylimino]-3,5-diphenyl- **873383-34-7**, 2-Pyrrolenine, 3-(1-naphthyl)-2-[3-(1-naphthyl)-5-phenyl-2-pyrrylimino]-5-phenyl- **873383-35-8**, 2-Pyrrolenine, 3-(1-naphthyl)-5-(2-naphthyl)-2-[3-(1-naphthyl)-5-(2-naphthyl)-2-pyrrylimino]- **873385-42-3**, 2-Pyrrolenine, 3-[3,4-methylenedioxyphenyl]-2-[3-(3,4-methylenedioxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- **873385-43-4**, 2-Pyrrolenine, 5-(p-methoxyphenyl)-2-[5-(p-methoxyphenyl)-3-phenyl-2-pyrrylimino]-3-phenyl- **873969-67-6**, 2-Pyrrolenine, 5-(2-naphthyl)-2-[5-(2-naphthyl)-3-phenyl-2-pyrrylimino]-3-phenyl- **873969-68-7**, 2-Pyrrolenine, 2-[3-(p-methoxyphenyl)-5-phenyl-2-pyrrylimino]-3,5-diphenyl- **873975-71-4**, 2-Pyrrolenine, 3-(m-hydroxyphenyl)-2-[3-(m-hydroxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- **873975-73-6**, 2-Pyrrolenine, 3-(p-dimethylaminophenyl)-2-[3-(p-dimethylaminophenyl)-5-

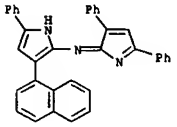
L7 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)
phenyl-2-pyrrylimino]-5-phenyl- **873975-75-8**, 2-Pyrrolenine, 2-[3,5-bis(p-methoxyphenyl)-2-pyrrylimino]-3,5-bis(p-methoxyphenyl)- **873975-77-0**, 2-Pyrrolenine, 4-benzamido-2-(3,5-diphenyl-2-pyrrylimino)-3,5-diphenyl-
(prepn. of)
RN 40047-93-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)



RN 768377-92-0 HCAPLUS
CN 1H-Pyrrol-2-amine, 3-(4-methoxyphenyl)-N-[3-(4-methoxyphenyl)-5-phenyl-2H-pyrrol-2-ylidene]-5-phenyl- (9CI) (CA INDEX NAME)

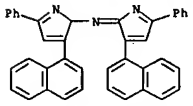


RN 858272-71-6 HCAPLUS
CN 2-Pyrrolenine, 2-[3-(1-naphthyl)-5-phenyl-2-pyrrylimino]-3,5-diphenyl- (4CI) (CA INDEX NAME)



RN 873383-34-7 HCAPLUS
CN 2-Pyrrolenine, 3-(1-naphthyl)-2-[3-(1-naphthyl)-5-phenyl-2-pyrrylimino]-5-phenyl- (4CI) (CA INDEX NAME)

L7 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 873383-35-8 HCAPLUS
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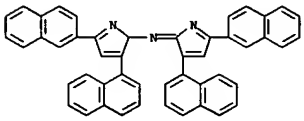
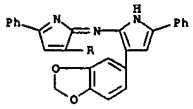
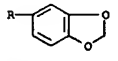
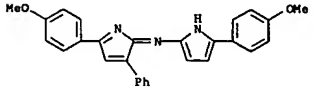


RN 873385-42-3 HCAPLUS
CN 2-Pyrrolenine, 3-(3,4-methylenedioxyphenyl)-2-[3-(3,4-methylenedioxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- (4CI) (CA INDEX NAME)



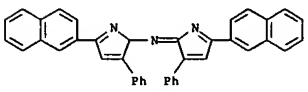


RN 873385-43-4 HCAPLUS
CN 2-Pyrrolenine, 5-(p-methoxyphenyl)-2-[5-(p-methoxyphenyl)-3-phenyl-2-pyrrylimino]-3-phenyl- (4CI) (CA INDEX NAME)

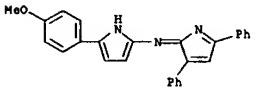


RN 873969-67-6 HCAPLUS
CN 2-Pyrrolenine, 5-(2-naphthyl)-2-[5-(2-naphthyl)-3-phenyl-2-pyrrylimino]-3-

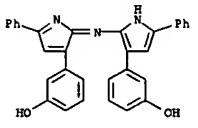
L7 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)
phenyl- (4CI) (CA INDEX NAME)



RN 873969-68-7 HCAPLUS
CN 2-Pyrrolenine, 2-[3-(p-methoxyphenyl)-5-phenyl-2-pyrrylimino]-3,5-diphenyl- (4CI) (CA INDEX NAME)



RN 873975-71-4 HCAPLUS
CN 2-Pyrrolenine, 3-(m-hydroxyphenyl)-2-[3-(m-hydroxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- (4CI) (CA INDEX NAME)



RN 873975-73-6 HCAPLUS
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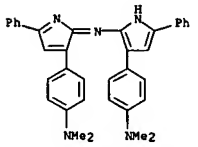
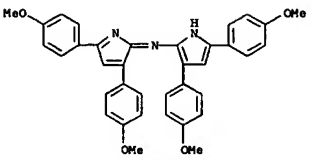
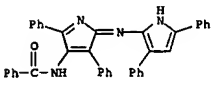


RN 873975-75-8 HCAPLUS
CN 2-Pyrrolenine, 2-[3,5-bis(p-methoxyphenyl)-2-pyrrylimino]-3,5-bis(p-methoxyphenyl)- (4CI) (CA INDEX NAME)

L7 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



RN 873975-77-0 HCAPLUS
CN 2-Pyrrolenine, 4-benzamido-2-(3,5-diphenyl-2-pyrrylimino)-3,5-diphenyl-(4CI) (CA INDEX NAME)



L7 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 16 Dec 2001
AB cf. C. A. 38, 1497.2. 5-Amino-2,4-diphenylpyrrole (I) and AcOCHO in EtOH give 66% of the formyl derivative (II), m. 175-6° (from MeOH or EtOH) or 171-2° (from C6H6); this is the compound obtained in Part I (C. A. 38, 1495.4) from the action of BzCH2CHPhCN (III) and HCONH2. I, heated in MeOH in air for 0.5 hr. and kept for 6 hrs., gives 40% of 2,2',4,4'-tetraphenylazadipyrromethine (IV). III (3 g.) and 10 g. HCONH2, heated for 17 hrs., give the following yields of IV: 120° 17.5%, 140° 18%, 160° 1.5%, 180° 0%. IV (100 g.) and 100 cc. HCONH2, heated 3 hrs. at 185-95° and the product ground with H2O, give 64 g. of II; if the reaction product is worked up under anhydrous conditions (C6H6), there results the compound C17H16O2N2, m. 158-60°; the crude material (m. 145-50°) on standing in moist air or more rapidly on treatment with H2O changes its crystalline form and yields II. III (5.9 g.) and 2.5 g. HCONH2 in 95 cc. EtOH, refluxed in a stream of air for 8 hrs., give unchanged III; 3 g. III and 28.7 cc. HCONH2 in 50 cc. EtOH give 10.7% of IV. III (3 g.) and 15 g. HCO2NH4 gave the following yields of IV on heating in air: 130° for 0.5 hr., 2.5%; at 130° for 3 hrs., 24%; at 140° for 20 min., 7%; at 180° for 4 min., 5% 220° for 1 min., 2.5%; in a slow stream of NH3: 140° for 2 hrs., 24%; 160° for 20 min. 10.8%; 180° for 4 min., 8%; in all cases above 160° longer time of heating reduced the yields. III (11.75 g.) and 160 g. HCO2NH4 in 200 cc. EtOH, refluxed 20 min. in dry air, give 2.36 g. IV. Under Leuckart conditions, 10 g. III and 50 g. HCO2NH4 (heated in an open flask, temperature rise to 200° in 20 min.) give 2 g. of II. III and AcONH2, heated at 180° for 20 min. and treated with H2O, give the Ac derivative (V); under anhydrous conditions the product, purified from CCl4 m. 133-9°, a trace of H2O gives V. III and AcONH4, heated to 200° (0.5 hr.), give 48% of IV; refluxing in EtOH for 20 hrs. gives 38% of IV. II (m. 172°) and Ac2O in C5H5N give a V m. 171-2° (changed to 192-3° on standing) and, from the C6H6 mother liquors, an acetylformyl derivative (VI), m. 138-9° (hydrolysis gives a V m. 176°); after long standing in aqueous EtOH, heating with H2O or heating at 142 ± 2°, VI has a m. p. of 150-1° (hydrolysis gives a V m. 192°); II (m. 176°) gives a VI m. 134-6° (after storage or crystallization from C6H6 the VI m. 139°), which is very sensitive to moisture. V (m. 176°), Ac2O and AcONa give a di-Ac derivative, m. 186-8°, and from the alc. mother liquor a small quantity of a tri-Ac derivative, m. 111-12°; these show no tendency to isomerize in different solvents or at 190°. II (m. 172°) and N HCl in 50% MeOH, refluxed 25 min., give I; in 36% HCl, heated at 100° for 4 hrs., it gives 72% of BzCH2CHPhCO2H (VIII); I and 36% HCl give 24% of VII and the V m. 171° gives 9.3% of VII. The mechanisms of the formation of II and of IV from I and HCO2NH4 or HCONH2 are discussed and interrelated. The Leuckart reaction (COR2 + HCO2NH4 → R2CHNH2 + R2CHNHCHO) and the Ott-Ingersoll modification (COR2 + HCONH2 → R2CHNHCHO) involve different intermediates which may, in the case of certain ketones, result in different products.
ACCESSION NUMBER: 1944:29082 HCAPLUS
DOCUMENT NUMBER: 38:29082
ORIGINAL REFERENCE NO.: 38:4263e-i,4264a-c
TITLE: 2,4-Diarylpyrroles. IV. Formation of acylated 5-amino-2,4-diphenylpyrroles from β-benzoyl-α-phenylpropionitrile and some notes on the Leuckart reaction
AUTHOR(S): Davies, W. H.; Rogers, Maurice A. T.
SOURCE: Journal of the Chemical Society (1944) 126-31

L7 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)
CODEN: JCSOA9; ISSN: 0368-1769
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
IT 40047-93-6, 2-Pyrrolenine, 2-(3,5-diphenyl-2-pyrrylimino)-3,5-diphenyl-
(preparation of)
RN 40047-93-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl-(9CI) (CA INDEX NAME)

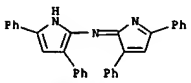
L7 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 16 Dec 2001
GI For diagram(s), see printed CA Issue.
AB PhCH(CH2NO2)CH2Bz (150 g.) and 430 g. HCO2NH4 (I), heated 0.25 h. at 180° and 0.25 h. at 190° (evolution of NH3, followed at 180° by HCO2H), the product triturated with MeOH and the residue crystallized from PhNO2, give 40.7 g. of 2,2',4,4'-tetraphenylazadipyrromethine ((II), R = R' = Ph), dark Cu-colored needles, m. 287-8°; II sublimes without decomposition at 15 mm. and with some decomposition at atmospheric pressure; the very pale blue-violet EtOH solution becomes a deep greenish blue on addition of a drop of mineral acid, from which II is precipitated by alkali; the cold concentrated H2SO4 solution gives II if diluted immediately, but if kept for 2-3 h. and then diluted, a brilliant green powder results. The MeOH extract gives 0.62 g. of 2,4-diphenylpyrrole (III), m. 180°. II and Cu(OAc)2 in BuOH, refluxed 0.5 h., give the Cu salt of II, C64H44N6Cu, Cu-brown prisms; the Co, Ni and Zn complexes were prepared also. The use of NH4OH in place of I gives a small amount of II; alc. NH3 gives a reddish tar but no II; low yields of II result with CO(NH2)2 or CS(NH2)2; no color resulted with AcNH2, PrCONH2 or hexamethylenetetramine (IV); lauramide gave a dull red color; the formates of MeNH2, PhCH2NH2 or H2N(CH2)6NH2 give low yields of II but that of PhNH2 gave no color. II and 65% HI, refluxed 0.75 h., give III; neutral oxidation of II with KMnO4 gave BzH and BzOH; acid oxidation yielded only BzOH; the reaction with other reagents is discussed briefly. 3-Nitrochalcone (25.3 g.) and 9.1 g. MeNO2 in 200 cc. MeOH at 35°, treated with MeONa (3.45 g. Na in 100 cc. MeOH) and refluxed 10 min., give γ-nitro-β-(m-nitrophenyl)butyrophenone, m. 74-7°; on heating with I for 0.25 h. at 180°, there results the 4,4'-bis(m-nitrophenyl) analog of II (R = m-O2NC6H4), needles with bright green reflex, m. 330°. 3-Hydroxychalcone and MeNO2 give γ-nitro-β-(m-hydroxyphenyl)butyrophenone, pale yellow-brown, m. 96-8°; heated with 5 parts of I at 160° this yields the 4,4'-bis(m-hydroxyphenyl) analog of II, needles with violet reflex, m. 304-6°. 4-Dimethylaminochalcone (10 g.) and 3.6 g. MeNO2 yield 0.5 g. of γ-nitro-β-(p-dimethylaminophenyl)butyrophenone, pale yellow, m. 114-15° (oxime, m. 121-3°); with 5 parts of I this yields the 4,4'-bis(p-dimethylaminophenyl) analog of II, needles with bright Cu reflex, m. 276-8°; MeI in PhNO2 for 24 h. gives a dimethiodide, soluble in H2O and EtOH with a blue color; it is a wool dye. CH2O2C6H3CH(CH2NO2)CH2Bz (50 g.) and 75 g. I give the 4,4'-bis(3,4-methylenedioxyphenyl) analog of II, Cu-brown needles, m. 258-9°. p-MeOC6H4COCH:CHPh and MeNO2 with MeONa give γ-nitro-β-phenyl-p-methoxybutyrophenone, m. 92-3°; with I this yields the 2,2'-di-p-anisyl analog of II, dull blue needles or plates, m. 239-42°. 4-Methoxychalcone gives γ-nitro-β-p-anisylbutyrophenone, m. 66°; this yields the 4,4'-di-p-anisyl analog of II, needles with bright greenish metallic reflex, m. 288-90°. γ-Nitro-β-anisyl-p-methoxybutyrophenone, an oil, yields 2,2',4,4'-tetra-p-anisylazadipyrromethine, bluish coppery needles, m. 281-2°. p-Acetamidochalcone (34.4 g.) and 25.5 g. NaCN in 500 cc. MeOH, refluxed 20 min. with addition of 24 cc. AcOH in 65 cc. H2O, give 12.2 g. of β-benzoyl-α-(p-acetamidophenyl)propionitrile, very pale yellow, m. 163-4.5°; heating with I for 10 min. at 190° gives the 4,4'-bis-(p-acetamidophenyl) analog of II, dull violet needles, m. about 370°. BzCH2CH2CHPhCN, on catalytic reduction (Raney Ni) in MeOH or AcOEt, gives 95% of 2,4-diphenylpyrroline (V), m. 40°. Traces of III result on prolonged heating of V at 350°. With Se at 250° for 3 h., V gives 55% of III; on a large scale some MePhCHCH2CH2Ph was formed. Raney Ni at 350° (liquid phase) gives about 50% of III; in the vapor phase Ni-pumice catalyst gives 83% of III.

L7 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)
The picrate and chloroplatinate dissoc. on attempted crystn. The AcOH soln. of III becomes blue on heating. The concd. H_2SO_4 soln. is canary yellow and becomes violet on heating. III gives a blue color with the Ehrlich reagent. It couples with diazo compds. to give colored ppts. $BzCH_2CH(C_6H_4OMe\text{-}p)CN$ with Raney Ni gives 2-phenyl-4-p-anisylpyrroline, b7 232-8°, m. 27° (picrate, pale yellow, m. 156-8°); Se at 250° gives 2-phenyl-4-p-anisylpyrrole (VI), m. 197-9°. p-$MeOC_6H_4COCH_2CHPhCN$ gives 4-phenyl-2-p-anisylpyrroline, pale yellow, m. 74-5° (picrate, canary yellow, m. 180-1°); 4-phenyl-2-p-anisylpyrrole (VII), m. 205-7°. III in EtOH-HCl with $NaNO_2$ gives the 5-NO deriv. (VIII), green, m. 139-40°; HCl salt, orange-brown, m. 190° (decompn.); VI yields a 5-NO deriv. (IX), green, m. 176-7° (decompn.); HCl salt, red to transmitted light; VII yields a 5-NO deriv., the HCl salt of which (with 1 mol. MeOH), yellow, decomps. at 170°. VIII and III in $AcOHAc_2O$, heated on a steam bath for 0.5 h., give 95% of II. VI and the HCl salt of VIII in AcOH, refluxed 1 h., give 2,2',4-triphenyl-4'-p-anisylazadipyrromethine, Cucolored, m. 256-7°; this also results from the HCl salt of IX and III. $O_2NCH_2CHPhCH_2Ac$ and 3 parts $HCONH_2$, heated 0.5 h., give a brown product which does not resemble II. $O_2NCH(CHPhCH_2Bz)_2$ [m. 230° (decompn.)] and I or $HCONH_2$ gave no blue color. Chalcone and $EtCH_2NO_2$ give γ-nitro-β-phenylhexophenone in 2 forms, m. 156-8° and 88-90° (sepd. by the insoly. of the former in cold PhMe); neither form gave a colored product when heated with $HCONH_2$. γ-Nitro-β-phenylbutyrophenone oxime, m. 108-10° (decomps. to a gum on standing); it readily gives the azamethine with I or $HCONH_2$. $BzCH_2CH_2CH_2NO_2$ with $HCONH_2$ gives a red-brown amorphous solid which is not related to the azamethines.

ACCESSION NUMBER: 1944:10121 HCAPLUS
DOCUMENT NUMBER: 38:10121
ORIGINAL REFERENCE NO.: 38:1495d-i,1496a-h
TITLE: 2,4-Diarylpyrroles. I. Synthesis of 2,4-diarylpyrroles and 2,2',4,4'-tetraarylazadipyrromethines
AUTHOR(S): Rogers, Maurice A. T.
SOURCE: Journal of the Chemical Society (1943) 590-6
CODEN: JCSOA9; ISSN: 0368-1769
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 38:10121

IT **40047-93-6**, 2-Pyrrolenine, 2-(3,5-diphenyl-2-pyrrylimino)-3,5-diphenyl-
(and metal complexes)

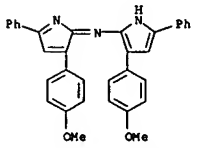
RN 40047-93-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)



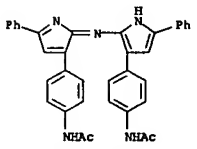
IT **768377-92-0**, 2-Pyrrolenine, 3-(p-methoxyphenyl)-2-[3-(p-methoxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- **858271-80-4**, 2-Pyrrolenine, 3-(p-acetamidophenyl)-2-[3-(p-acetamidophenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- **873385-42-3**, 2-Pyrrolenine,

L7 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)
3-(3,4-methylenedioxyphenyl)-2-[3-(3,4-methylenedioxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- **873385-43-4**, 2-Pyrrolenine, 5-(p-methoxyphenyl)-2-[5-(p-methoxyphenyl)-3-phenyl-2-pyrrylimino]-3-phenyl- **873969-68-7**, 2-Pyrrolenine, 2-[3-(p-methoxyphenyl)-5-phenyl-2-pyrrylimino]-3,5-diphenyl- **873975-71-4**, 2-Pyrrolenine, 3-(m-hydroxyphenyl)-2-[3-(m-hydroxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- **873975-73-6**, 2-Pyrrolenine, 3-(p-dimethylaminophenyl)-2-[3-(p-dimethylaminophenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- **873975-75-8**, 2-Pyrrolenine, 2-[3,5-bis(p-methoxyphenyl)-2-pyrrylimino]-3,5-bis(p-methoxyphenyl)-
(prepn. of)

RN 768377-92-0 HCAPLUS
CN 1H-Pyrrol-2-amine, 3-(4-methoxyphenyl)-N-[3-(4-methoxyphenyl)-5-phenyl-2H-pyrrol-2-ylidene]-5-phenyl- (9CI) (CA INDEX NAME)

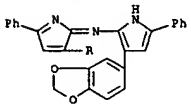


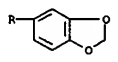
RN 858271-80-4 HCAPLUS
CN 2-Pyrrolenine, 3-(p-acetamidophenyl)-2-[3-(p-acetamidophenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- (4CI) (CA INDEX NAME)



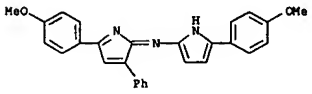
RN 873385-42-3 HCAPLUS
CN 2-Pyrrolenine, 3-(3,4-methylenedioxyphenyl)-2-[3-(3,4-methylenedioxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- (4CI) (CA INDEX NAME)

L7 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)

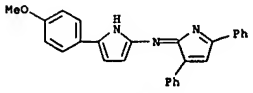




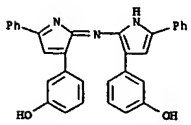
RN 873385-43-4 HCAPLUS
CN 2-Pyrrolenine, 5-(p-methoxyphenyl)-2-[5-(p-methoxyphenyl)-3-phenyl-2-pyrrylimino]-3-phenyl- (4CI) (CA INDEX NAME)



RN 873969-68-7 HCAPLUS
CN 2-Pyrrolenine, 2-[3-(p-methoxyphenyl)-5-phenyl-2-pyrrylimino]-3,5-diphenyl- (4CI) (CA INDEX NAME)

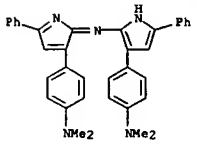


RN 873975-71-4 HCAPLUS
CN 2-Pyrrolenine, 3-(m-hydroxyphenyl)-2-[3-(m-hydroxyphenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- (4CI) (CA INDEX NAME)

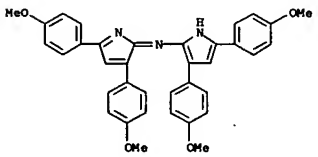


RN 873975-73-6 HCAPLUS
CN 2-Pyrrolenine, 3-(p-dimethylaminophenyl)-2-[3-(p-dimethylaminophenyl)-5-phenyl-2-pyrrylimino]-5-phenyl- (4CI) (CA INDEX NAME)

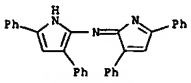
L7 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)



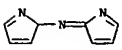
RN 873975-75-8 HCAPLUS
CN 2-Pyrrolenine, 2-[3,5-bis(p-methoxyphenyl)-2-pyrrylimino]-3,5-bis(p-methoxyphenyl)- (4CI) (CA INDEX NAME)



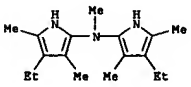
L7 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 16 Dec 2001
AB 2,2',4,4'-Tetraaryl-5,5'-azadipyrromethines have been prepared by 2 general methods. In the first the 2,4-diarylpyrroles (made by dehydrogenation of the pyrrolines) were converted into their 5-nitroso compds. which condensed readily with the α-position of a second mol. of the pyrrole. By the 2nd method the azamethine was obtained by the action of formamide, or certain other simple NH3-donating substances, on compds. such as ArCH(CH2NO2)CH2COAr' or ArCH(CN)CH2COAr'. The simplest member of the series made is 2,2',4,4'-tetraphenylazadipyrromethine, an intensely blue compound subliming with little decomposition when heated in the air and with no decomposition when heated in vacuo. The azamethines form metallic compds. analogous to those formed by the true methines.
ACCESSION NUMBER: 1943:27258 HCAPLUS
DOCUMENT NUMBER: 37:27258
ORIGINAL REFERENCE NO.: 37:4390h-i,4391a
TITLE: Tetraarylazadipyrromethines: a new class of synthetic coloring matter
AUTHOR(S): Rogers, M. A. T.
SOURCE: Nature (London, United Kingdom) (1943), 151, 504
CODEN: NATUAS; ISSN: 0028-0836
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
IT **40047-93-6**, 2-Pyrrolenine, 2-(3,5-diphenyl-2-pyrrylimino)-3,5-diphenyl-
(preparation of)
RN 40047-93-6 HCAPLUS
CN 1H-Pyrrol-2-amine, N-(3,5-diphenyl-2H-pyrrol-2-ylidene)-3,5-diphenyl- (9CI) (CA INDEX NAME)



IT **873975-69-0**, 2-Pyrrolenine, 2-(2-pyrrylimino)-
(tetraaryl derivs.)
RN 873975-69-0 HCAPLUS
CN 2-Pyrrolenine, 2-(2-pyrrylimino)- (4CI) (CA INDEX NAME)



L7 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN (Continued)
hrs. at 150-60° with concd. NH4OH), m. 260°.
ACCESSION NUMBER: 1923:20774 HCAPLUS
DOCUMENT NUMBER: 17:20774
ORIGINAL REFERENCE NO.: 17:3185g-i,3186a-e
TITLE: Synthetic experiments with blood pigment cleavage products and complex salt formation in dipyrrylmethenes. I
AUTHOR(S): Fischer, Hans; Schubert, Max
SOURCE: Ber. (1923), 56B, 1202-11
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
IT **861583-63-3**, Pyrrole, 2,2'-(methylimino)bis[4-ethyl-3,5-dimethyl-
(preparation of)
RN 861583-63-3 HCAPLUS
CN Pyrrole, 2,2'-(methylimino)bis[4-ethyl-3,5-dimethyl- (2CI) (CA INDEX NAME)



L7 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2006 ACS on STN
ED Entered STN: 16 Dec 2001
AB Hitherto, all attempts to use the degradation products of the blood pigment for synthetical purposes have led only to the formation of bimol. pyrroles with the same substituents on both nuclei and since in bilirubic acid has been found a combination of a basic hydroxypyrrole with a pyrrolecarboxylic acid it became most important to prepare a combination of a basic blood pigment derivative with an acid component. Kryptopyrrole (I), which was then to be converted into the aldehyde, was chosen as the starting point but as it is obtained in only 20% yield by the methods of synthesis previously used it was hoped that better results might be obtained by starting from a crystalline substance, such as 2,4-dimethyl-3-acetylpyrrole semicarbazone, m. 203-4°, which could then be reduced to I with hot NaOEt, but the semicarbazone was obtained in only 0.1 g. yield from 0.5 g. of the ketone. 2,4-Dimethyl-3-acetyl-5-carbethoxypyrrole hydrazone, m. 137°, is smoothly obtained, however. Nor need it be isolated; when 6 g. of the ketone is heated 8 hrs. on the H2O bath with 3 g. N2H4.H2O, then 12 hrs. at 150-60° with 5 g. Na in 75 cc. alc., then distilled with steam and the distillate is extracted with CHCl3 there is obtained 2.1 g. crude I, yielding 5.5 g. of the picrate, m. 136°. From the part non-volatile with steam can be isolated considerable 2,4-dimethyl-3-acetylpyrrole ketazine, m. 212° (picrate, m. 208°). 2,4-Dimethyl-3-ethyl-5-chloroacetylpyrrole, from the crude I and ClCH2CN in cold CHCl3 saturated with HCl and allowed to stand 12 hrs., m. 149°, gives a negative reaction with Ehrlich's reagent in the cold, positive on heating, yields with alc. NHMe2 in a sealed tube at 100° the HCl salt, m. 201-2°, of the 5-dimethylaminoacetyl derivative C-Kryptopyrrylmethylamine (1 g. from 1 g. I and 0.75 cc. anhydrous HCN in cold CHCl3 saturated with dry HCl and allowed to stand 1 day), m. 142°; 1 g. boiled in H2O suspension to disappearance of the NH3 odor yields 0.1 g. 2,4-dimethyl-3-ethyl-5-formylpyrrole (II), m. 105-6°. Oxime of II, m. 118°, yields a picrate, m. 155°. Semicarbazone, m. 203°; picrate, m. 162°. From 0.6 g. of the semicarbazone heated with Na in alc. at 150-60° for 7 hrs. is obtained phyllopyrrole, isolated as the picrate (0.4 g.), m. 104°. Equimol. amts. of II and 2,4-dimethyl-3-carbethoxypyrrole (III) boiled a short time in a little concentrated HCl yield the HCl salt, m. 212°, of bis-[2,4-dimethyl-3-carbethoxypyrryl]methene, m. 189°. Bis-[2,4-dimethyl-3-ethylpyrryl]methene perchlorate, from II in a little alc. and 20% HClO4 heated to incipient boiling and allowed to stand several days, becomes discolored 170°, decomps. 240°. With 1 mol. kryptopyrrolecarboxylic acid instead of III, however, 0.06 g. II gives 0.04 g. of the brown-red HCl salt of [2,4-dimethyl-3-propionic acid-pyrryl][2,4-dimethyl-3-ethylpyrryl]methene (IV), m. 215°, and with hemopyrrolecarboxylic acid is obtained the HCl salt of [3-propionic acid-4,5-dimethylpyrryl][2,4-dimethyl-3-ethylpyrryl]methene (V), m. 220°. Complex Cu salts were obtained from the following methenes in alc. with ammoniacal Cu solution: Bis-[2,4-dimethylpyrryl]methene, C26H30N4Cu (0.2 g. from 0.5 g. of the methene), green needles, mol. weight in boiling C6H6 440, shows in very dilute CHCl3 solution an absorption band at λ490-515, changed by AcOH to green with production of a band at λ480-50; when the solution is shaken with concentrated HCl the latter becomes faintly pink and shows a faint absorption at λ500-485, while the CHCl3 solution shows sharp absorption at λ500-450. Cu salts of IV and V, red-brown needles. Cu salt of bis-[hemopyrrolecarboxylic ester]-methene, crystals with a green shimmer, shows a sharp absorption band in very dilute alc. solution at λ520-10. 2,4-Dimethyl-3-acetylpyrrole-5-carboxamide (0.8 g. from 4 g. of the Et ester heated 6

=> log y

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	166.05	503.99

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-24.00	-24.00

STN INTERNATIONAL LOGOFF AT 17:00:41 ON 15 MAR 2006